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WWW.CLOVE.CO.UK

palmtop user

The magazine for handheld computers & communicators

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General

Palmtop Publications

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EDITORIAL

Manufacturers have always been guilty of stretching the truth a little in order to present their products in the most favourable light, and the world of handheld computers is naturally no exception.

A claimed 'feature' of recent handhelds that I personally find particularly annoying is the issue of screen resolution. As an example, at a recent press launch for the (thoroughly excellent) Palm Tungsten T3, the Palm representatives proudly announced that their big new 480x320 pixel colour screen was able to display a massive spreadsheet grid of 29 rows and eight columns—a whopping 232 cells of information at your fingertips. Clearly a specification that floors the Pocket PC and Symbian competition—or so you'd think.

Delightful as it is to have a screen that shows crisp, smooth text and sharp graphics, this rash claim for hi-res spread-sheeting fails to mention that the text in the aforementioned cells is a mere 1mm (0.04") in height. That's *half* the size of the text you're reading at this moment.

I'll happily concede that my own eyesight isn't what it was 20 years ago, but I find such tiny text a major strain to read even with reading glasses on, and barely possible without.

So, is such a tiny typeface of any practical use to those of us without superhero-like vision? Probably not. The best rule of thumb is that although higher resolution handheld screens can make text a little smoother on screen, the idea of being able to read more information at a time is gener-ally a red herring. If you want to read twice as much information on your screen, you really need to buy a device with a display that's proportionally bigger.

Another aspect of modern handhelds that drives me mad is the issue of navigation buttons. Just because PDAs are small and pocketable, it doesn't mean that users are magically able to operate controls a quarter the size of those on any normal appliance. The scrolling and navigation buttons of many handhelds require a dexterity that I simply don't possess, and I don't even have unusually large fingers.

Miniaturising the innards of our handhelds is a good thing. It brings us a good deal of the power of a full-sized computer in a pocketable package. The exterior though—the bit we interact with—is a whole different matter. Until such time that technology can enhance my eyesight and dexterity, can handheld manufacturers *please* keep their feet a little more firmly on the ground?

Steve Clack - November 2003

Triple whammy from Palm

Palm has launched three new handhelds. The top-end Tungsten T3 features a 320x480 display, 64MB of RAM and extra operating system enhancements and is reviewed on page 27. The Tungsten E (reviewed on page 31) has 32MB of RAM plus the traditional Tungsten specification at a new, much lower price. At the bottom of the price scale comes the Zire 21, an update of the original Zire with 8MB of RAM

and a monochrome screen. The Zire 21 will not be available in Europe until next year. Palm has also discontinued the older m515 and m130.

A range of accessories was announced at the same time, including a wireless (infrared) foldable keyboard and a 1.3 Megapixel SD card camera. The latter can take 24-bit colour JPEG photos at up to 1280x1024 resolution, and features adjustable focus and video capture.

www.palmone.com

iPAQs edge into lead

According to the latest Europe, Middle East and Asia figures from Canalys for Q3 this year, HP has edged into a slight lead, with 201,000 iPAQs shipped compared to 186,000 Palm handhelds. Despite only having a single model, Sony Ericsson is a creditable third with 118,000 P800's sold. No other manufacturer exceeded 60,000 units in the quarter for this region.

www.canalys.com

VGA on a handheld?

Toshiba has launched two new Pocket PCs, one with a switchable 480x640 pixel screen. The e800 also has 128MB of RAM and 32MB of user flash memory, plus dual expansion slots. The slimmer e400 has a slower processor and 64MB of RAM.

We expect to review both models in the next issue.

www.toshiba.com

P800 successor emerges

Sony Ericsson has launched its successor to the well-received P800. The P900 is slimmer and more business-like in appearance, with an active flip and a new version of the UIQ interface. See page 43 for a full review.

www.sonyericsson.com/p900

Sendo X soon to take off

Sendo, recovering from its huge fall-out with Microsoft around six months ago, has unveiled its replacement smartphone, dubbed the Sendo X. This will run Nokia's Series 60 interface, with a 'Sendo Now!' home screen. It features a 'GraphiX co-processor', apparently improving video playback performance on the 16-bit colour screen. The Sendo X is tri-band, with GPRS and Bluetooth.

www.sendo.co.uk

More new iPAQs

HP has unveiled the iPAQ Pocket PC h4150 and h4350. Both have Wi-Fi and Bluetooth connectivity, a removable rechargeable battery, 400MHz processors and 64MB of RAM. The h4350 is distinguished by including an integrated thumb keyboard. The h4150 is due for imminent UK release, but no date has yet been given for the h4350 to appear in the UK. The h4150 will be reviewed in the next issue.

www.hp.com

EPOC finally falls

Psion Teklogix has dropped its EPOC operating system in favour of Windows CE.net 4.2 for the update to its last active palmtop product, the netBook. The new netBook Pro's hardware is massively different too, with a 400MHz Intel PXA255 processor, 128MB of RAM, 800x600 display, mini-USB and SD slots, plus proper microphone and speaker slots.

www.psionteklogix.com

New Clies

Sony has announced two more Clie handhelds, the PEG-TJ25 and TJ35. Each has a thin design, high resolution screen, 200MHz processor and Palm OS 5.2. Both expansion slots take the Memory Stick Pro format. The TG25 has 16MB of RAM while the TG35 has 32MB and an integrated MP3 player. Both models are reviewed on page 36.

www.sonystyle.com

JVC cancels

Following the earlier announcement of its new high-end Pocket PCs, JVC has apparently decided to cancel/postpone their launch, quoting "delays in availability".

www.jvc.com

Axim update

Dell has updated its Axim range of Pocket PCs. The new X3 has optional Wi-Fi, 64MB of RAM and a removable rechargeable battery pack. See the next issue for a full review.

www.dell.com

Orange-only Treo 600

The much-anticipated (Handspring) Treo 600 has started shipping in Europe, but only for the Orange phone network, which is preconfiguring the unit with Internet access, Orange Backup and Orange Update software. Subscribers to other networks will apparently have to wait. See page 40 for a full review.

www.handspring.co.uk

Orange's 'other' smartphone

Orange has also announced the SPV E200, a Microsoft Smartphone handset. The main differences from the original SPV are a VGA digital camera and the integration of Bluetooth wireless.

www.orange.co.uk

Welcome the XDA II

Over a year after the introduction of the XDA, the first device based on the Phone Edition of Microsoft's Pocket PC platform, mmO2 has finally unveiled its successor, which should be shipping now. The XDA II has an integrated VGA-spec digital camera, Bluetooth and Windows Mobile 2003. New in its software is support for MMS and SDIO technologies. We'll be reviewing the XDA II in the next issue.

www.mmo2.com

A920 locked down

Motorola has launched the A920, another UIQ/Symbian communicator, in the UK, in partnership with Hutchison 3G. Unfortunately, it features a 'closed' version of the operating system, and only official Hutchison-approved software can be installed. Until the A920 is opened up we won't be featuring it in Palmtop User.

www.motorola.co.uk

Alternative keypad
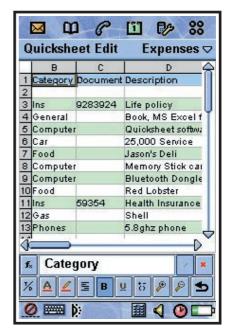
Nokia's 3650 may be a little dumbed-down for hardened handheld users, but it has still sold well despite the unusual circular keypad. Just in case this was still putting users off, there's now a 3660 model with traditional numeric layout as well.

www.nokia.com

Quickoffice does Symbian

The best-selling Quickoffice suite for Palm OS has now been released for Symbian, making possible full Word and Excel editing on UIQ devices such as the Sony Ericsson P900.

www.quickoffice.com

Digital TV coming soon

Sony has announced that it will soon ship samples of its mini digital television broadcast tuner, which can be used by manufacturers to enable smartphones and PDAs to receive broadcast TV. The BTD-ZJ611 tuner is smaller than a postage stamp.

www.sony.com

PalmGear in the thick of it

PalmGear has acquired PalmSource's subsidiary Palm Digital Media ebook provider and will power a new PalmSource online software store.

www.palmgear.com

Apps over the air

Handango and Sony Ericsson have teamed up to create an Over The Air (OTA) software shop from which applications can be downloaded (and purchased) on a P800 or P900 communicator.

www.sonyericsson.com/applicationshop

Native Office hits Palm OS

Both the leading Palm OS Office suites now feature direct support for native Microsoft Office documents, whether emailed in or copied locally. Quickoffice 7.1 was the first to acquire this functionality, but now its rival is in on the act. Documents To Go

Premium Edition version 6 also features a new user interface on the desktop and handheld, the ability to use password-protected files and language tools such as spell checking and word count. Additionally, DataViz Mail has been renamed to Inbox To Go and now synchronizes email with Office attachments.

www.quickoffice.com
www.dataviz.com

Replacing Pocket Excel

SoftMaker, best known for TextMaker, its fully featured Pocket Word replacement, has a Pocket Excel replacement in the works. PlanMaker 2003 will be as fully specified as its sister product and will support conversion to and from Microsoft Excel 5.0, 95, 97, 2000, XP and 2003.

www.softmaker.de/pmp_en.htm

Checking up

From smartphone stalwart Nokia comes this Observation Camera, the latest PDA accessory for those in need of remote supervision. The gadget snaps pictures in VGA resolution and records audio clips, sending these via MMS (see page 49) to your communicator. Pictures can be requested manually or triggered using motion detection.

www.nokia.com

THE BIT BOX

A quick look at some of the latest PDA-related accessories, books and must-haves...

Miniature USB

If you travel with a laptop computer as well as your handheld, USB chargers are a great idea, as they avoid the need for a bulky mains adaptor by trickle-charging your PDA whenever the USB cable is connected. For the ultimate in portability, Proporta's Retractable USB Sync Charge Cable is only around 10cm (4") long when fully retracted, but extends to up to 85cm (34") using a clever, spring-loaded (but lockable) spool mechanism. £16.50.

www.proporta.com

Non-slip PDAs

A non-slip textured rubber pad to stick on the back of your PDA (or mobile phone) may sound like a worthless gimmick, but 'egrips' are in fact amazingly effective. Pop one of these self-adhesive panels onto the bottom of your handheld and there's almost no way you'll accidentally knock it off your desk. The friction of the textured pad also reduces the likelihood of your palmtop sliding out of a pocket, bag or even your

hand, and the pads are easy to peel off if ever the need arises. Although only around 0.5mm (0.02") thick, they can interfere with some snug-fitting PDA cases, so check first. $10, from *www.egrips.com.* Also available for other devices, such as laptops, GPS units and portable CD, DVD and MP3 players.

Palm accessory invasion

Palm has released a whole plethora of accessories just in time for Christmas. Amongst the various cases, styli and other paraphernalia are a pair of new keyboards. The £76 Ultra-Thin Keyboard is essentially a more compact version of Palm's previous offering, attached via the Palm Universal Connector, but weighing only 165g (5.8oz). The £59 Wireless Keyboard is of similar design, but relies on the handheld's infrared port to communicate with the keyboard, with a tiltable mirror to ensure a good link to the keyboard's infrared 'eye'. The latter requires fairly accurate positioning of handheld and mirror to achieve reliable operation, but

both offer good tactile feedback and are admirably portable.

www.palmone.com

Keyboard roll-ups

If you need a portable keyboard that's both compact and durable, the waterproof silicone roll-up Whitelite FX-100 Keyboard is worth a look. At only 80g (2.7oz) it's one of the lightest add-on keyboards on the market too, and comes with suitable adaptors for most recent Palm and iPAQ handheld models. Around ¾ full size, the FX-100 includes a dedicated Menu key in addition to the usual alphanumeric layout. £50.
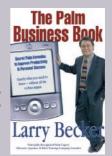
www.proporta.com

A good read

A title that's been available for a few months now but that is nevertheless excellent, Larry Becker's 'The Palm Business Book' is a 300+ page paperback devoted to maximising the productivity boost that should come from owning a Palm OS handheld. The book's claim to provide "solid information for busy people" is well-founded, and specific chapters are included for several professions, including managers, teachers, sales professionals and students. The book discusses a good assortment of add-on software, as well as general techniques and tips. $30.

www.thepalmbusinessbook.com

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Palm OS
SOFTWARE

We take a look at the latest software for your Palm OS handheld or communicator...

Information silo

The ever-popular **iSilo** document reader and web content tool has just been updated to version 4, for both Palm OS and Pocket PC. Always an excellent solution for extracting and converting web pages for storage on your handheld, complete with hotlinks and images, this new version adds support for a wide range of language encodings. Other improvements include support for inline drop-down menus for navigation, vCard and vCalendar links and the ability to handle a wider range of images. As before, companion desktop conversion programs are available for PC, Macintosh, Linux and UNIX. $20, from *www.isilo.com*.

Passwords AGAIN?

Yes, it's *yet another* Palm OS application for storing private passwords, credit card numbers and the like, but **TealSafe** immediately stands out with its high-level 128-bit data encryption, handsome interface, easy setup and truly excellent support for custom lists using your own field headings. Good as the handheld application is, it's missing the all-important PC desktop companion program that comes with most of Teal-Safe's competitors. Thus, if you lose your handheld, you'll be left without any access to your passwords and access codes until the device is replaced. $20, from *www.tealpoint.com*.

Phone helper

Designed as a replacement for the built-in Palm Address Book, **PhoneMagic** adds several neat features. Most useful is perhaps the ability to add a timed, dated call reminder for any entry with just a few screen taps, complete with an accompanying text note if desired—great for ensuring that you keep in regular touch with important business clients. Other less compelling but handy features include keeping your most common contacts at the top of the PhoneMagic address page, and 'Smart' lookup of names on first, last and company name. A 'virtual' link system lets

you hotlink any text field in any application back to any PhoneMagic address via the Palm OS command bar. Well worth a look if you have a lot of contact management to do. $20, from *www.phonemagic.com*.

DTG goes native

The single most significant improvement ever to **Documents To Go Premium Edition**, the new version 6 adds support for native Microsoft Word and Excel files. This represents a huge leap in compatibility with other platforms, at last making it possible to exchange Office documents with non-Palm users. There are masses of other improvements too, including a much improved desktop interface for both PC and Macintosh. The feature lists of the handheld applications still fall some way short of their best-of-breed competitors, though Word To Go has now been bolstered with word count and spell checking. Overall, a worthwhile upgrade for all existing users, and otherwise worthy of serious consideration. $50, from *www.dataviz.com*.

List master

ListMaker has always been a really top-notch general-purpose list manager, and one of the best of all for working with shopping lists in particular. Its great strength lies in the ease with which it can save list items for re-use over and over again. Lists can be multi-level in true outliner fashion, and there are plenty of sorting and purging options to help you keep track. This new version 2.0 adds long-awaited Palm OS 5 support, complete with hi-res icons and an updated import/export facility. $20, from *www.installigent.com*.

Novel launcher

The latest addition to the burgeoning Palm application launcher market takes a refreshingly original approach. Instead of simply presenting your standard application list with a new interface, **Hi-Launcher** lets you arrange your favourite applications into a pop-up launch menu rather akin to the Windows Start Menu, which can then be triggered from within any application. By taking a few minutes to work through the program's straightforward setup routine, you can lay out your applications in a clear and logical fashion. Superbly configurable, you can set any button or gesture to trigger Hi-Launcher, and add multiple levels of hierarchical menus, complete with dividers to separate items and clarify the layout, with 'special' items for Find, backlight control, beam receive, and so on. Of course, you'll need to add any new programs manually to the list, but other than that, this is one of the most effective and convenient launchers we've used, and works happily in conjunction with the built-in Palm launcher. $15, from *www.hilauncher.com*.

Universal spell checker

If you'd like the ability to spell check any text documents on your Palm OS handheld, look no further than **LexSpell**. Just configure the software, then invoke it from within any text editing application via the Palm OS command bar. It will then spell check your entire document (or text field) at lightning speed—one or two seconds

per 100 words on a 144MHz Palm device. If you check the option to suggest alternative words along the way it can take a few seconds to pop up all the options, but the delay is minimal. The only thing really missing is the ability to spell check a selected word or phrase rather than the whole document being viewed, though it's possible to get around this by copying and pasting into LexSpell's own editor window. Dictionaries are available for six languages (each with a lexicon of 100,000 to 300,000 words), including both British and American English, and you can of course add your own words as necessary. From $15, from *www.beiks.com*.

Improved World Wide Web

Already included with new Palm handhelds such as the Tungsten T3 and Tungsten E, version 3 of **Palm Web Pro** is also available separately for use on other Palm OS devices. As mentioned in our Tungsten T3 review on page 27, version 3 makes for an altogether more satisfactory web browsing experience than its predecessors, with good rendering of a much larger percentage of real-world web pages. Compliant with HTML 4.01, xHTML 1.0, cHTML, SSL 3.0, JavaScript 1.0 and CSS 1.0, to name but a few. Gone are the days when Palm web browsing was a horribly hit-and-miss affair, Palm Web Pro's new feature set puts it near the top of the list of current handheld browser applications. It sports a clean and friendly interface, complete with both proxy and proxy-less modes. $35, from *www.palmone.com*.

Brand new bank manager

A long-time favourite amongst Psion owners and recently ported to Pocket PC, **RMRBank** is at long last here for Palm OS handhelds too. Although this first version is far more basic than its Psion predecessor, there's full provision for repeating direct debits, excellent multi-currency support and automatic counters to keep your cheque numbers straight. Most frustrating of the omissions in this version is the absence of any import/export facility, but otherwise this is a good, solid bank account management package. £12/$20, from *www.rmrsoft.com*.

Video player gets new face

The popular Kinoma Player has been providing video playback for Palm OS handhelds for some time now. The latest version 2 is a major revision, with a slick new hi-res user interface, enhanced 'widescreen' support for the latest Palm, Sony and Garmin devices, plus stereo sound and full-screen video. There's also the new **Kinoma Producer 2** for both PC and Macintosh OS X, which provides encoding of all popular video formats for storage and playback on the handheld. As before, the handheld player is free, but the desktop component costs $30, from *www.kinoma.com*.

Symbian
SOFTWARE

A roundup of the latest software releases for your Symbian communicator

Flashy photos

SplashData's first software for Symbian, a port of its well known **SplashPhoto** for UIQ devices such as the Sony Ericsson P800. UIQ comes with a basic image browser, but it's inflexible, slow, and large images can't be panned around at full zoom. SplashPhoto sorts out everything that's wrong or missing with the built-in software. There's a choice of four browsing modes (file list, small thumbnails with details, large thumbnails and '12 to a page'), all of which work well. Viewing a photo always happens full-screen, and tapping and holding gives complete control, including a 'Zoom to 100%' function, great for panning around big images. Perhaps most importantly of all, the decoding of JPEG images is very fast, and you can navigate a full-screen slideshow almost as fast as you can turn the Jog Dial. About the only downside is that photos added by the SplashPhoto Desktop application end up in a different folder to those for the built-in software, though both are scanned by SplashPhoto. Registered users of the Palm OS version can switch platforms for free. $30, from *www.splashdata.com*.

Turbo toolkit
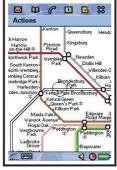
It's seems to be an unwritten rule that there's always one essential utility for every computer platform, filling in the holes in the basic operating system but without making too much of a song and dance about it. **SMan** is just such a tool for UIQ devices, bringing together such essentials as task switching and management, memory optimisation and Contacts compression. Usefully, SMan can be assigned to the usually fairly redundant blue 'Internet' key, giving you one-press access to your P800's internals, and there's even an option to auto-start both SMan and other specified applications every time the P800 is booted. One of its most useful extras is 'Fix applist', correcting a long-standing bug in Symbian OS whereby all your application icons disappear after something new is installed. This version 1.2 is something of a major rewrite, and the developers have included luxuries such as a 'Today' view and a password protected information store. Recommended. Free, from *renegade.w3xs.com/droll.htm*.

London in your pocket

Also available on Palm OS and Pocket PC, **Tube London Pro** and its stablemates are all based on panning around very large images of the appropriate underground (subway) diagrams. Each one is highly indexed, station by station, with a very fast station finding and route calculation engine. Planning a tube route from any station to any other is virtually instant, with an option of seeing the route traced out on a scrolling map or simply viewing the text instructions. Tapping and holding on a station brings up information on the tourist attractions nearby. The optional 'Pro' bit in the name refers to the inclusion of 1.5MB image tiles from a London A-Z, a nice idea, but basing such a large and complex system on bitmap information rather than vector data is *very* slow. Two central tiles are supplied, with extras at £7 each. £10 upwards, from *www.visualit.co.uk*.
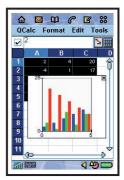
Spreadsheets arriving

Cutting Edge Software's **Quicksheet** was one of *the* killer applications in the early days of Palm OS, and there's no reason why it couldn't scale similar heights on UIQ. The first release version opens native Excel files and feels smooth as silk but, apart from getting its sums right, many of the cosmetic functions that make a spreadsheet so usable are so far missing. Quicksheet takes its office rôle seriously, insisting on saving changes to an Excel document into a new file, to avoid the UIQ version's limitations damaging any of the content in the 'rich' desktop version. $40, from *www.quickoffice.com*.

Alternatively, **QCalc** is a spreadsheet written in Visual Basic and hosted on the popular AppForge Booster. QCalc is more fully featured than Quicksheet at the time of going to press (including features like range sorting and charts), but two big omissions are pane freezing and direct import/export of Excel files. Another work in progress. £15, from *www.netrovia.com/p800*.

Lists, lists, lists

To-do list, like most of the other Series 60 applications, is dumbed down, to put it mildly. Quite apart from the input restrictions caused by having to use the phone keypad, there's only one list, ruling the application out for anything more than trivial reminders. **List Manager** opens up a lot more uses, with as many hierarchical lists and tasks as you care to input, each with an optional description and percentage complete. As with similar programs on other platforms, the list hierarchy can be

expanded and collapsed at will, here using the Series 60 navigator button. Helpfully, tasks from the built-in To-do list application can be imported and re-used. €15, from *www.psiloc.com*.

Pouvez-vous me dire…?

It's not often that we review a pure Java application, but **Absolute French** (and its sister product, **Absolute Spanish**) is worthy of note, at least on Series 60 smartphones.

Launched from 'Tools | Apps' only (a little clumsy), it's a language phrasebook with 150 common phrases included, categorised into 'Basics', 'Transportation', etc. Offsetting the small vocabulary, it is redeemed slightly by the inclusion of spoken versions of each phrase. The compression used is so heavy that it's sometimes difficult to pick the words out, but it's better than nothing. Interestingly, Absolute French is very contemporary, including both swear words and pick-up lines among the more usual touristy phrases. $6, from *www.fonbo.com*.

Fast Psion backups

A program that does exactly what it claims, **FastBackup** runs on ER5 Psions and performs backups of internal memory onto CompactFlash card. Everything is nicely configurable, with each backup only copying those files that have changed since the last time FastBackup was run.

The program's over-sized dialog box was clearly designed for the Series 7/netBook, as it only just fits into the Series 5/5mx screen. The program is open source though, so future development is possible. Free, from *www.freepoc.org*.

Easy answer

Armed with **SmartAnswer**, you can free your Nokia 9200 from your phone provider's voice mailbox service. This ingenious program lets you record your own 'answerphone' message on the communicator, then play it back when incoming calls are picked up and record each caller's message. The system can be activated either by a hotkey combination or via a selected profile, and messages can be stored on MMC card if desired. The software sensibly warns you as to how much message space you have available, and presents a list of messages ready for playback at your convenience. €10, from *www.symbianware.com*.

Font fixer

The Nokia 9200 series has always been able to use TrueType fonts as well as Nokia's own format. To avoid all the usual headaches of manual font installation or removal, **Fonts** adds itself to your Control panel and takes over the whole process, with a preview of each font style appearing in the installation window. Essential for font fans. €10, from *www.mbrainsoftware.com*.

Introducing **Splash**Photo **4**

The Ultimate Image Viewer for all Handhelds and Smartphones

SplashPhoto is the fastest, easiest way to view images on your handheld or Smartphone.

SplashPhoto supports all leading handheld operating systems including Palm OS, Pocket PC, MS Smartphone, Symbian UIQ and Series 60.

Add your favorite images with the included desktop software then sync with your handheld to view images on the go.

And managing your handheld photo albums has never been easier. With the new desktop catalog and two-way synchronization, the images on your handheld are always up-to-date.

With support for all leading PDAs and Smartphones, SplashPhoto is right for you.

For more information, to purchase or to download a free trial, visit: www.splashdata.com

Handheld Computing
Best Product 2002

splashdata

Handango Champion 2003
Best Lifestyle Application

Pocket PC
SOFTWARE

Some of the most interesting new software additions for your Pocket PC handheld or communicator...

Fancy finances

A brand new banking package that has immediately impressed is **Spb Finance**. With a delightfully clear and well-conceived interface, this powerful application includes support for multiple currencies (and doesn't force you to use US$ by default), assets and liabilities, split transactions and budgeting. The excellent reports module offers a full breakdown of where the money's going, including Net Worth and Profit & Loss, in either textual or graphical format. The program appears very slick throughout, and gives the option to show any or all of your account balances in the Pocket PC Today screen—if you've got a strong enough stomach. You can also import or export files in QIF format. The only notable omission from this first version is the ability to auto-enter repeating transactions, such as direct debits—an all-too common failing of PDA-based finance programs. $20, from *www.softspb.com*.

Better (Palm) books

The Pocket PC version of Palm's ebook reader software has always been an ugly cousin, with your ebook 'library' presented as an unattractive and uninformative list, and a largely menu-driven interface in place of the Palm version's compact icon bar. The latest incremental upgrade to **Palm Reader (Pro)** 2.3.2 does nothing to banish the clumsy menus, but displays your ebook library in a much more friendly fashion, and adds 'theme' settings for open books, so you can set your text pages to show in any colour you like, complete with coloured or patterned backgrounds. A free upgrade that's well worth the download. *www.palmone.com*.

The XP experience

Shelling out $20 to make your Pocket PC interface look more like Windows XP won't be everyone's idea of money well spent, but **eXPerience** adds not only an authentic XP-like taskbar, but rolls in a decent program launcher and all the other Windows XP Start
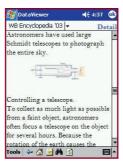
Bar shortcuts for My Documents, My Device (File Explorer), Control Panel, Help, Find, Run, and so on. Other extras include a task manager that shows all currently running processes as well

as applications, the ability to dock the Start Bar to any of the four screen edges, and good configurability throughout. Overall, a capable set of desktop tools that'll brighten up the appearance of your Pocket PC. $20, from *www.digitalexpedition.com*.

Encyclopaedia gigantica...

Keeping an ency-clopaedia on your handheld is a nice idea, but the latest **World Book Encyclopedia 2003 Handheld Edition** from Town Compass is quite a monster. Its 17,000 entries

and 1,700 graphics will take more than 56MB of your storage card space—even the zipped download is around 23MB. As usual with Pocket PC applications, you'll tempo-rarily need at least double the program's installed space available for a successful installation, so don't even consider this unless you can clear out 120MB or so. There's a mountain of fascinating refer-ence material on tap here, with some very detailed and informative descriptions, and the DataViewer engine (as used with all the other Town Compass products) runs admi-rably fast, even with this massive data file. Looking up a chosen topic is made easy via a manageable array of nested sub-menus.

Even a keyword search through the entire body text of the database takes only about a minute. Aside from the fairly basic text formatting and a few odd typos here and there, the only major disappointment is the graphics, which in this version are optimised for a screen only 160 pixels wide. As they're not zoomable, most images are impossibly small for use on a Pocket PC, and any text annotations are completely unreadable. Despite this, and even taking the non-trivial price into consideration, this is still an undeniably impressive resource to keep on a handheld, and is worthy of serious consideration. $50, from *www.towncompass.com*.

...and companion dictionary

With 140,000 words the **World Book Dictionary H a n d h e l d Edition** isn't the biggest lexicon ever seen on a handheld-based dictionary, but the 225,000 defi-nitions are unusu-ally detailed,

complete with cross-references, syllable breakdown, pronunciation and usage examples. The dictionary uses exactly the same DataViewer engine as the World Book Encyclopedia above, and runs at a good speed, despite the huge 37MB data file. $50, from *www.towncompass.com*. Both the encyclopaedia and dictionary products will soon be available for Palm OS.

Power recorder

The voice memo facility built-into Pocket PCs is a handy feature for dictating quick notes, but it's a fairly basic affair. **Resco Audio Recorder**'s new version 2.5 incor-porates virtually every missing feature you can think of, and a few more besides. The

ability to record in MP3, RAF and WAV formats gives maximum flexibility for playback on other devices, and recordings can have 'tags' attached at any points to mark important passages for future reference. Most impressive though is the voice activation recording system (VAS), which starts and stops the recording process only when you're speaking near the device. Importantly, the sensitivity of the VAS system can be adjusted to prevent false recordings (or missed ones), and once set up, it works perfectly. Less valuable for general use is the ability to schedule automatic recordings for any time of day, but it's further evidence of the overall completeness of the package. The system is rounded off with the obligatory skinnable interface, import/ export of recordings and tags, and an option to turn the Pocket PC screen display off to conserve power during recordings. $20, from *www.resco-net.com*.

Alarm control centre

If you feel you don't have enough control over your Pocket PC alarms, **alarmToday** may be just the ticket. The program comprises four main components: one to display your upcoming alarms on the Today screen, another to control the way alarms sound and repeat, a third to create 'Alarm notes', and a fourth to add custom alarms.

The Today screen display is eminently configurable to include only the events you want to see (including system alarms), and can be limited to show a specified number of days or items. Configuration of alarm sounds includes specifying the number of repeats and the volume, including a handy option for 'escalating'. You can even override the system volume setting, to avoid missing important alarms. The Today screen alarm list includes icons for creating new alarms via Calendar events, Tasks and the aforementioned Alarm notes, which let you add scribbled 'Post-It' type notes with individual alarms attached. The custom alarm option can be used to launch an application, document or graphic at a preset time, or play a chosen music file for you. The Today screen display also provides quick access to the alarmToday preferences screen, and includes support for Pocket Informant and Agenda Fusion. A lot of tools for a great price. $10, from *www.pocketmax.net*.

Buttons and macros

buttonMax is designed to re-map your Pocket PC's five hardware buttons for launching extra applications or system functions. By assigning double-click and tap-and-hold actions for each button, it becomes possible to run extra applications and, if you can remember all the key combinations, you can even set different button mappings for each application. Even more powerfully, buttonMax can 'learn' sequences of screen taps in any application and play them back as macros, which can then be triggered using alarm-Today. $20, from *www.pocketmax.net*.

Protective Aluminium Cases

Proporta
www.proporta.com

Luxury Leather Cases

Proporta Repair Services

Proporta is pleased to offer a complete repair service for your handheld computer. Whatever the problem, our experts have seen it before. Please be sure to read all the information on our website regarding our repair process, service & terms.

Proporta offers a £15 refundable diagnosis fee (excluding shipping of the machine) to provide a repair assessment and quote. Proporta only repairs units in the UK at present.

Vendor	Handheld	Touch Panel	Screen	Buttons	Battery
Palm	m5xx	39.95*	72.50	-	-
	m1xx	34.95	60.00	-	-
	V/Vx	32.95	75.50	20.00	45.00
	C3 (IBM)	32.95	72.50	20.00	45.00
	III Series	39.95	60.00	-	49.50
	Pro, Per	39.95	50.00	-	-
Handspring	Edge	34.95	49.00	-	-
	Visors (NOT Prism)	34.95	49.00	-	-
	Neo	34.95	49.00	-	-
Sony	Clié PEG Series	39.95	-	-	-
Dell	Axim X5	44.50	-	-	-
O2	XDA	49.50	-	-	-
HP	iPAQ 3xxx	39.95	98.50	-	-

*All prices are given in GBP and are subject to change

Star Ratings:

★★★★★ **Excellent**
★★★★☆ **Good**
★★★☆☆ **Average**
★★☆☆☆ **Fair**
★☆☆☆☆ **Poor**
☆☆☆☆☆ **Dismal**

Interpreting reviews

Quality: the Quality star rating reflects how well the product works, whether it includes all the features you'd expect, whether the interface is consistent and easy to use, and in data-based products also reflects the quality of the information contained in the program.

Value: the Value star rating reflects the value for money of the product, taken within the context of what the product does.

Palm Tungsten T3

Take Palm's design classic of the Tungsten T/T2, put in a screen that's 50% larger (320x480 pixels), a 400MHz XScale processor and 64MB of memory, then squeeze it all into a package that's virtually the same size and weight, and only a few tens of pounds more expensive. Add the latest Documents To Go version 6 with native Microsoft Word and Excel file support into ROM, together with a newly-enhanced suite of PIM applications, VersaMail email client and Bluetooth, and the result should be mightily impressive.

Rather more than impressive, Palm's Tungsten T3 gives the impression that this is the way handhelds were really meant to be designed. Following the assumption that the ideal PDA has the biggest possible screen in the smallest possible package, the T3 beats every other handheld device hands down, while still maintaining a solid, durable construction and good sized hardware buttons that are a real pleasure to use.

Palm OS has always been admirably undemanding of processor power for most PDA functions, so by putting a Pocket PC-style 400MHz CPU under the hood, the T3 absolutely flies. Previous criticisms aimed at Palm OS tended to centre around its lack of multimedia support (partly an issue of processing power), but the large screen size, built-in RealOne MP3 and Kinoma movie players, coupled with a 'Photos' application for viewing static images, all seek to put this criticism to rest.

With the sliding case in its closed position, the T3 screen shows a standard 320x320 pixel configuration, with data input achieved via the usual pop-up keyboard or by scribbling Graffiti 2 gestures directly on screen, as with the Tungsten T2 and Tungsten C models. The action of extending the bottom of the casing activates the previously-hidden lower third of the screen.

As with 320x480 high-end Sony Clie models, any applications that haven't been specifically designed to take advantage of this larger screen size will show a virtual Graffiti window or on-screen keyboard below the usual 320x320 window. Most of the built-in applications fully support the larger screen size, with the notable exception of Expense.

With no fixed Graffiti input area at the bottom of the screen with its associated soft buttons, Palm has adopted a narrow, Sony Clie-style toolbar to provide access to Home, Find and Menu functions, plus a handy on-screen clock that can be tapped to pop up a sound, battery and screen brightness display/control. Additional icons provide quick access to Bluetooth settings, and to enable/disable on-screen Graffiti input, switch screen orientation between portrait and landscape modes, and control the pop-up Graffiti input window or on-screen keyboard.

For maximum input flexibility, the pop-up Graffiti 2 window can either display the usual side-by-side 'abc' and '123' boxes

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for alphabetic and numeric input, or three windows: one for lower case letters, one for capitals and the third for numbers. Those who prefer keyboard entry can pop up a standard QWERTY keypad instead, similar to that used on Pocket PCs.

The addition of a 'rotated' landscape mode is a first for Palm OS, but provides an arguably more comfortable display format for many applications, particularly when viewing certain spreadsheets. The sideways display can be set for either right or left-handed use, and displays the toolbar strip down the edge of the screen rather than across the bottom. The pop-up Graffiti/keyboard window appears down the edge too, and sensibly uses an A-B-C format keyboard rather than trying to reconfigure a QWERTY keyboard for this tall, narrow format.

There's obviously been a lot of attention to detail shown by Palm when designing this new interface, from the way the on-screen Graffiti window and keyboard appear to 'slide' out in animated fashion, to the sensible layout of toolbar icons to access important functions. Another nice touch is that a brief tap-and-hold on the 'Home'

icon brings up a pick list of recently-used applications, ready to launch.

Although the T3 runs the already familiar Palm OS 5.2.1, the built-in Date Book (now renamed 'Calendar'), Address Book (now 'Contacts'), Memo Pad (now 'Memos') and To Do List (now 'Tasks'), have all been given a worthwhile facelift, partly aimed at improving compatibility with the ubiquitous Microsoft Outlook, and partly to address some very longstanding limitations and annoyances.

Calendar adds a Pocket PC-like 'Today' view, which shows all appointments and tasks for the current day, now together with notification of any unread emails waiting in the VersaMail client. A quick tap on an item naturally takes you straight to the appropriate entry, and tasks can even be checked as completed from within the Today screen. Calendar events can now have locations set, Outlook-style, and good use is made of the extra screen space available by adding a three-month and full year calendar view. Fixing a long-standing gripe with Date Book, events can now span midnight, which will elicit a long-overdue sigh of relief from nocturnal Palm users.

Contacts' improvements on the earlier Address Book application include more fields for alternative addresses, phone numbers and other details, plus a birthday field, which shows through into the Calendar application with an appropriate reminder on the date you define.

Tasks can now be set to repeat at any interval if desired, and can have their own alarms. The main Tasks view can be set to show items by category, as before, but can now also be set to show only items that are overdue, due today, or due in the last or next seven days.

The Memo application offers only one improvement over its Memo Pad predecessor, but it's one that's long overdue. Rather than being constrained to a 4,000 characters for each memo entry, they can now be up to 32K in length—more than adequate for any reasonable use.

Rather than bundling Chapura's Pocket Mirror conduit for Microsoft Outlook compatibility, Palm has now created its own, which appears functionally identical and works just as well.

The copy of Documents To Go version 6 pre-loaded into the T3's ROM of course saves on memory space over the usual practice of having to load the software from CD, but conversely poses a problem when it comes to upgrades, which will need to be loaded into memory in any case. Documents To Go has long since formed the core of 'Office' compatibility with Palm handhelds, and this new version's ability to read and save *native* Word and Excel files is a welcome addition that will allow Palm users to exchange data far more readily with other computer users while on the go, be it via email, beaming, Bluetooth or whatever. Although the individual spreadsheeting and word processing applications are still not the most powerful ever seen on a PDA, basic functionality is all there, and Documents To Go's desktop compatibility (for both PC and Macintosh) is second to none.

The latest version of the Palm Web Pro browser (version 3) is a major improvement on earlier versions, and did an admirable job of rendering virtually every web page we tried. This browser is especially satisfying to use in the T3's landscape mode.

Good as the T3 is, a few of the familiar Palm OS limitations are naturally still there, with no built-in support for accessing programs and data directly from SD or MMC storage card rather than internal memory, the reliance on Palm's proprietary PDB format for data files and the resulting headaches when it comes to exchanging files with non-Palm devices.

There's also still no working driver available for SDIO Wi-Fi cards, locking T3 users out of this particular wireless technology for the time being.

The minimalist translucent plastic clip-on screen cover from the earlier Tungsten T and T2 has at last been ditched, in

favour of a much more serviceable reinforced leather flip cover that attaches to the back of the unit. The attachment points for this near the top-rear of the case are complemented with another two anchor points in the lower-rear section of the slider mechanism, making it easy to attach suitably-designed third party cases without resorting to Velcro fastenings and other ugly work-arounds, another sign of Palm's indefatigable attention to detail on this model.

And this attention to detail goes further, with a simplified Bluetooth setup, J2ME support for Java Applets, and tweaks to the Palm Desktop application to support the revised PIM applications.

All in all, the Tungsten T3 shows that Palm has got a finger firmly on the pulse when it comes to gauging what handheld users want and need in a top-end device. Yet this all comes at a price no more than we were paying for a standard colour PDA only months ago, particularly as street prices for the T3 are already at least 10% below RRP.

If Palm OS is your operating system of choice then the T3 is hard to beat. With such a good combination of cutting edge hardware design, generous software bundle and comparatively low price, this is a device worthy of serious consideration by anyone in the market for a new PDA with around £300 to spend.

Palm Tungsten T3

From: All major handheld dealers

Contact: www.palm.com

Price: RRP £330 inc. VAT

Quality:	★★★★☆
Value:	★★★★★
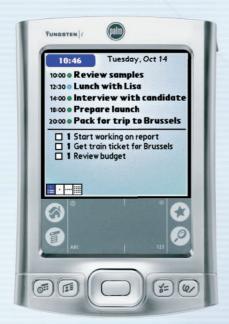
Palm Tungsten E

Palm's latest entry-level business handheld looks rather like a Tungsten T, but without the sliding case mechanism. With the same super-bright 320x320 transreflective display of the Tungsten T2, T3 and TC, the Tungsten E boasts an impressive specification at a recommended price of only £165. Running Palm OS 5.2.1, with 32MB of memory, SDIO expansion slot and 126MHz TI processor, the Tungsten E *is* almost a T2 in terms of basic specifications, and at around 130g/4.6oz is slightly lighter in weight.

As far as software goes, the 'E' uses the same enhanced versions of the Palm PIM applications as the T3 (see page 27). Impressively, it also includes virtually the same software bundle, though it all needs to be loaded into memory from the supplied CD rather than being pre-loaded into ROM.

Few concessions seem to have been made in order to bring the Tungsten E down to its remarkable price point. The casing of the unit is plastic, but with a handsome polished stainless steel appearance, and there's the usual SDIO expansion slot and stereo headset socket. As with so many budget handhelds, a full desktop HotSync cradle has been omitted in favour of a USB cable and separate mains adaptor/charger cable, but these are both well constructed and fit positively into the base of the unit. Note that the connector on the TE is not Palm's usual 'Universal Connector' type, so for business users who require Palm's Universal Connector for connection of Ethernet cradles, etc. this model is not appropriate.

Bluetooth is understandably absent, limiting the use of the bundled web, email and SMS applications to 'old fashioned' infrared communication with a suitably equipped mobile phone.

To round off the package, Palm supplies a removable m500-style leatherette flip cover to protect the screen.

With the inclusion of built-in word processing and spreadsheeting with the new Documents To Go Professional version 6, together with all the other PIM applications, the Tungsten E is a remarkably complete package at a truly remarkable price. Sony's SJ22 (reviewed in the last issue) is still worthy of consideration in this price bracket, but the T|E is a serious business handheld at a budget price.

Palm Tungsten E

From: All major handheld dealers

Contact: *www.palm.com*

Price: RRP £165 inc. VAT

Quality:	★★★★☆
Value:	★★★★⯪

Sony Clie NX73V

With its flip-around clamshell design and integral camera, the NX73's nearest ancestor is probably the NX70V, reviewed back in issue 3. At a maximum 640x480 pixel resolution the NX73 camera offers similar image quality to the NX70V, still suitable only for 'fun' shots and snaps for low-res web use. Although it's possible to adjust the white balance and brightness of images taken with the NX73, there's no flash facility, further limiting the camera's capabilities. If you're looking for a PDA to take high resolution, quality images, then the more expensive (and heavier) Clie NZ90 (reviewed in the last issue) is the device to choose. As well as still images, it's also possible to shoot low-res 'movies' with the NX73—which are MPEG-4 compatible and incorporate sound.

If you're happy with the so-so camera, the NX73 is otherwise quite capable, with the excellent Clie Launcher application providing quick access to a well-rounded suite of built-in applications. As well as the usual Palm OS PIM software, there's the Clie Mail email client, NetFront web browser, SMS text messaging software and PicSel Viewer, Sony's excellent read-only viewer for Office-type documents.

Throw in Sony's universal infrared remote control software for your TV, VCR and DVD player, file manager and backup software, image viewer, photo editing software, Flash Player, MP3/ATRAC3 music player and voice recorder, and you have a handheld that's designed very much with multimedia in mind.

As is now the norm for almost any modern handheld costing over £300, the NX73V has built-in Bluetooth. When enabled, a *huge* blue light at the top of the device flashes every second or so. This completely ridiculous feature would be more at home atop an ambulance than a handheld computer, and with no way to turn it off, most users will want to mask off the flashing window with a square of opaque sticky tape.

A flip-up door at the back of the device reveals a standard Type I/Type II CompactFlash slot, which can accept Sony's dedicated Wi-Fi card, sold separately. Following criticism of the Sony-Wi-Fi-only CF slots built into other recent high-end Clies, the NX73 slot works happily with standard CompactFlash memory cards without recourse to purchasing separate third party driver software. Although the compartment is flush-fitting with no CF card inserted, it protrudes awkwardly with a card in place, and obstructs the swivelling camera lens over at least 45˚ of its normal 180˚ travel. Given that one of the most convenient ways to operate the camera is with the clamshell closed (as per the image on next page) and the lens pointing directly towards the back of the device, this makes it inconvenient to use a CF card for storing

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photographs as you take them, which would otherwise have been more economical than using Sony's proprietary Memory Stick or Memory Stick Pro format, which are available via a standard slot halfway down the right side of the machine.

Running Palm OS 5.0, the NX73 uses the original Graffiti gesture recognition system rather than Graffiti 2, accessed via a pop-up 'virtual' window that can be invoked from the standard Clie-style toolbar strip along the bottom edge of the screen, an arrangement that Palm has mimicked with its new Tungsten T3 (see page 27). There's a pop-up virtual keyboard that can be used instead of Graffiti if preferred, or a small, 'thumb' keyboard for when used with the casing in the open position (see photo on previous page). The NZ90-like thumb keyboard is better than most, providing reasonable tactile feedback. The whole keyboard illuminates with its own backlight when in use, making it quite practical to use in complete darkness if necessary.

A first for Sony is the inclusion of the Decuma system as an option for text entry, designed to allow 'natural' letter and number shapes to be entered into a pop-up window at the bottom of the screen (see photo, once again). Although it's possible to 'train' Decuma to recognise your preferred letter shapes, we were unable to achieve a recognition accuracy as good as with Graffiti or Graffiti 2, and the lack of a cursive (joined-up writing) mode means that it's hard to achieve faster speeds, which would otherwise have given the Decuma system at least one advantage over Graffiti.

As with the NZ90, the NX73 suffers from having too little internal memory, with only 11MB of the built-in 16MB available out of the box. Although perhaps acceptable for a £200 device, this is really too little for a power user spending twice that much.

Pitched alongside Palm's Tungsten T3, the NX73V looks a little out of its depth—unless you really need Wi-Fi. The T3 offers twice the processor speed, four times the memory and landscape screen operation, all for around £100 less. Of course there's no camera, but this can be added via an SDIO expansion card, making the two devices a similar price. If you like the combination of thumb keyboard, camera, Bluetooth and optional Wi-Fi (or CF memory card) then the NX73V is a reasonable choice, but otherwise there are a number of other devices more worthy of consideration.

Sony Clie NX73V

From: All major handheld dealers

Contact: www.sonystyle.com

Price: RRP £400 inc. VAT

Quality:	★★★✯☆
Value:	★★★✯☆

By introducing new handhelds at a rate approaching one per month, Sony buyers have the benefit of getting a wide range of purchasing options, but for most of us it's all getting a little confusing. Tablet models, clamshell models, some with keyboards, some without, with cameras or without, Bluetooth, Wi-Fi—a seemingly endless array of combinations.

In terms of physical layout, the UX50 is Sony's most unconventional handheld to date, with a laptop-like landscape-only display and QWERTY keyboard as the primary input method. Don't be misled by the photographs though—with its tiny screen and cramped keyboard in a footprint barely larger than a Palm Tungsten T2, this is no Psion 5mx or Windows Handheld PC.

Size is everything with the UX50. Although the screen is 480x320 pixels, the minuscule width of only 68mm (2.68") makes for an exceptionally high pixel density and correspondingly tiny text and graphics. If your eyesight is good then you may be quite happy with this arrangement, but many users will find long periods of staring at the UX50 screen to be a frustrating experience, despite its top-notch TFT clarity.

Keyboard input is satisfactory, despite a total keyboard width of around 90mm (3.5"), and although touch typing is naturally out of the question, it's possible to tap out text at a satisfactory rate with a little practice. Those used to holding a keyboarded palmtop in two hands and typing with two thumbs will find the UX50 relatively comfortable, except for anyone with large hands. Note that there's no illumination for the keyboard, making it unusable in dim lighting.

As far as styling goes, the UX50 is a real beauty, showing Sony's usual panache for producing handsome consumer electronics. When closed, the casing is rounded and comfortable to hold, with a large ring moulded into the corner for attaching the supplied wrist strap—particularly useful, as no carrying case is supplied as standard.

As an option to the usual 'clamshell' mode, the screen can be swivelled by 180˚ and closed back onto the casing, in a similar fashion to the Sony NX73V, NZ90, etc. In this arrangement a pop-out window can be invoked for Graffiti 2 input, with an option for left-handers that puts the input window at the left of the screen rather than the right. A Decuma input option is also provided, as with the NX73V (see page 32).

As well as built-in Bluetooth, this is the first Sony handheld to provide truly integrated Wi-Fi connectivity, rather than relying on a separate plug-in CF card. Wi-Fi setup is a snap, taking only seconds to configure, and, if using the UX50's Wi-Fi to hook up to a wireless Internet connection, the built-in NetFront browser makes for a surprisingly satisfying web experience. Battery life is acceptable for wireless use too, with the UX50 running for a good 2-3 hours of continuous browsing.

As well as this comprehensive connectivity, Sony has also squeezed a 640x480 pixel camera into the tiny UX50. There's understandably no flash, but the camera works acceptably well for capturing low-res images, and incorporates Sony's usual swivelling lens arrangement.

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As per usual for Sony, there's MP3/ATRAC3 audio playback via a standard headphone socket (headphones not supplied) and a Memory Stick Pro expansion slot. Desktop connectivity, unless you're using a wireless connection, takes the form of a slim desktop cradle that sits flat beneath the device, making it easy to continue using it in either open or closed mode while charging. In fact, the UX50 naturally has a slight tendency to tip over backwards if the screen is touched with the open unit laid flat on a desk, and the cradle prevents this.

If you're travelling and don't want to carry the sync cradle around, the UX50 package also includes a plain USB cable that plugs directly into the side of the unit—a nice touch.

The arrangement of hardware controls on this landscape-format handheld is naturally a little different to the usual Palm OS PDA layout, with the Sony Jog Dial replaced by a little cylindrical 'roller' at the front left of the keyboard. This works well with the casing in either clamshell or closed orientation, though in the latter configuration the edge of the roller is fouled slightly by the lid of the unit, a minor annoyance.

Alongside the jog control are four hardware buttons: Back (Sony's answer to the PC 'Esc' key), plus three re-mappable buttons, set by default to launch the web browser, email and Date Book applications.

Software included with the UX50 is the usual generous Sony bundle, similar to the NX73V (see page 32) all running under Palm OS 5.2, and all pre-loaded into ROM. Although the UX50 has only 16MB of memory, thankfully more than 15MB of this is available for running programs. Still not exactly generous for a £600 handheld, but just about acceptable for the average user. A first for Sony, the UX50 also comes with 27MB of internal flash memory, which can be used just like Memory Stick space.

The usual (excellent) Clie Launcher has been replaced with a new 'Clie 3D Launcher', which tries to present application icons on screen laid out on a three-dimensional rolling 'cylinder' arrangement, which foregoes the crispness of the original launcher layout in favour of a more gimmicky but less functional appearance.

All things considered, the Sony UX50 is a real enigma. It's one of the most expensive handhelds on the market today, and despite excellent wireless support and generally good specifications, for most people this won't be a winning combination for the price. Previous owners of keyboarded handhelds are strongly encouraged to try out the UX50 before committing to a purchase, in order to get a real feel for just how tiny this handheld is.

If you happen to take to the UX50's peculiar mix of size, layout and capabilities then it could be the perfect handheld for you, even if it's no bargain. It's stylish, nicely constructed and sure to draw interest wherever it goes.

Sony Clie UX50

From: All major handheld dealers

Contact: *www.sonystyle.com*

Price: RRP £600 inc. VAT

| Quality: | ★★★★☆ |
| Value: | ★★★☆☆ |

Sony Clie TJ25/TJ35

It may or may not be a coincidence that the Sony Clie TJ25 and TJ35 *look* so similar to Palm's new Tungsten E, but with prices of £152 and £181 respectively, there's no doubt that they're pitched at the same target market. Basic 'Meat and potatoes' handhelds, just like the Tungsten E, they're designed for the budget-conscious buyer who has little need for such wizardry as wireless connectivity, built-in cameras and capacious memory. All the standard PDA functionality is there, with OS 5.2.1, standard PIM suite and Graffiti 2, with Decuma input also included on the TJ35. Synchronization and charging is via USB cable, supplied in the box together with a carrying strap and flip cover.

At last forsaking the pedestrian Dragon-ball processors of the earlier budget Sony models, these both run at a more impressive 200MHz and feel very snappy to use. The hardware side of things is otherwise largely unremarkable, except that the standard issue Sony Jog Dial down the left side of the device has been replaced with a 'roller' control where the up/down arrow keys used to be. This performs exactly the same function as a Jog Dial and works equally well, though the new layout will drive long-time users crazy until they get used to the new way of doing things.

For simple up/down navigation, a pair of good-sized buttons are placed either side of the jog roller: left for up, right for down.

Essentially almost the same device, the TJ25 comes with 16MB of memory (11MB available) and a bare-bones piezo buzzer for sound output, while the TJ35 gets 32MB (23MB available), with full MP3/ATRAC3 audio playback via an integral headphone socket. Both have Memory Stick Pro slots, neither have Bluetooth. Undoubtedly both excellent value, these two models lose out a little to the Palm Tungsten E with its more comprehensive Office software bundle and updated PIM suite. Sony's capable PicSel Viewer is bundled with both devices on CD, and its ability to read most Office documents goes at least part of the way towards compensating for the Tungsten E's out-of-the-box ability to read *and* edit Office files.

Palm OS users are now spoiled for choice for good sub-£200 devices, and the Palm Tungsten E, Sony TJ25 and TJ35 are all well constructed and unlikely to disappoint.

Sony Clie TJ25/TJ35

From: All major handheld dealers

Contact: *www.sonystyle.com*

Price: RRP £152/181 inc. VAT

Quality:	★★★★☆
Value:	★★★★☆

Palm OS

Garmin iQue 3600

With Garmin's many years expertise in standalone GPS systems, it's no great surprise that this is the first company to attempt a PDA with built-in GPS receiver.

Despite being the first of a new breed, this is no half-hearted attempt to tack GPS navigation onto a Palm OS handheld. The level of integration of the mapping system is impressive throughout, taking full advantage of the benefits of incorporating street-level navigation directly into the Palm Address Book application.

Ignoring the navigation side for a moment, as a Palm OS handheld the iQue 3600 is generally well specified: 200MHz ARM processor, 480x320 TFT colour screen, OS 5.2.1 (but without the latest PIM enhancements of the Palm T|3 and T|E), MP3 player, voice recorder, SD/MMC expansion slot and the ever-useful Sony-style jog dial. It's a major disappointment that Bluetooth hasn't been included in the iQue—almost unforgivable on any handheld over £300 nowadays. The other disappointment is that from the 32MB of internal memory there's less than 15MB available once you've loaded up the standard software bundle. Again, just too much of a compromise at this price level.

Internal memory is of course out of the question for storing the detailed street maps used by the iQue, with the full UK map taking around 130MB of SD storage space. Naturally enough the card is not supplied, so figure in the cost of at least a 256MB card when budgeting your purchase.

For GPS operation, it's necessary to swing out the hinged antenna (see photo to right) to an almost horizontal position, which then activates the appropriate software on the handheld and begins acquisition of a positional fix from the orbiting satellites. In order to mount the unit in a suitable position in a car you'll probably need the optional £57 Auto Navigation Kit,

which incorporates a bracket to hold the handheld close enough to the windscreen to get an adequate signal, and adds a cigarette lighter charger and an amplified speaker for extra-clear turn-by-turn directions in a noisy vehicle.

The basic mapping and GPS-related applications (excluding the maps themselves and the optional system of voice prompts) are built into ROM, with their own dedicated button (in place of the standard Memo Pad button) to cycle between them.
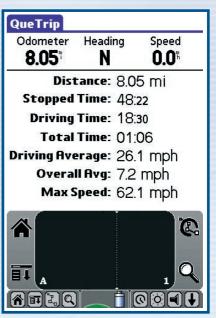
Palm OS

QueFind is central to the operation of the iQue 3600, making it easy to look up any location or point of interest

QueTrip shows a helpful trip summary. Note also the pop-up virtual Graffiti input area at the bottom of the screen

Central to these Garmin-specific applications is QueFind, which replaces the built-in Palm OS Find function with a graphical screen displaying 18 find options, with 17 navigation-related searches, plus the standard Find. Searches include waypoints, cities, attractions, shopping, entertainment, services, lodging, etc. Tapping on the appropriate option brings up a searchable list of all currently stored items in the current category, complete with compass heading and distance from your current location. Once an item is selected, a tap on the 'Details' button brings up a neat little mini-map of the area with a more complete description of the location, together with the option to save it directly as a re-usable waypoint. Alternatively, a tap of the 'Route to' button will plan a route from your current location.

Route planning preferences give the option for 'Faster time', 'Shorter distance' or 'Off

road', with the third option assuming a walking journey. Routes can be optimised for car/motorcycle, truck bus, emergency, taxi, delivery, bicycle or pedestrian, with each option adjusting estimated speeds and preferred routes accordingly. Another useful feature is the option to avoid toll roads, highways (motorways) and unpaved roads, in any combination. There's also an option to 'Avoid U-turns', but this tends to offer an absurdly convoluted route if you make a mistake, sometimes taking you miles out of your way just to avoid turning back on yourself to get back on track.

As an option to showing a scrolling map while en route, the QueTurns screen shows a clearly-marked, scrollable list of the next four upcoming junctions, with time and distance to each helpfully marked.

Aside from pure route planning, some excellent navigation-related utilities

are loaded in ROM. QueTrip provides a screenful of summary information on your current or last journey, including distance travelled, driving time, stopped (stationery) time, average speed, maximum speed, and so on. The GPS status display is similarly helpful, showing full details of signal acquisition, strength and current location. As with Garmin's standalone GPS units, the iQue 3600 can also record 'Tracklogs', plotting exactly where you've travelled since a predefined point.

The all-important system of voice prompts, which needs to be installed from CD, gives crisp, clear instructions (in a female, American voice), even over the fairly small built-in speaker.

The system generally works well, though things go horribly awry at roundabouts. Because roundabouts are virtually unheard of in the USA (where the software was written), it seems that nobody thought to make provision for their appearance. As a result, coming to a roundabout and going clockwise, taking the first (left turn) exit, elicits an instruction of "turn left, then turn left". Even worse, if travelling ¾ of the way around a roundabout (effectively a 270˚ clockwise movement) you are instructed to "turn RIGHT, then turn left", which directs you straight into the path of oncoming traffic. As a result, there's no option but to ignore directions for upcoming roundabouts, and glance at the on-screen graphical instructions instead. Garmin is of course aware of the problem, and a fix is due around January of next year.

If you deviate from the calculated route, the friendly voice announces "Off route, recalculating...", at which point the software does a remarkably quick recalculation of your new optimal route. This worked very well during our (limited) test period with the iQue 3600, always offering a sensible re-optimised route.

The interface of the mapping software built into the iQue is exceptionally well thought out, from the automatic switching of the map display to a high-contrast nighttime colour palette during the hours of darkness, to the flexible map zoom that can be set to cover anything from 800 miles to 120 feet from a simple pick list. The map can also be scaled simply by dragging out and zooming to a rectangle on screen. Another way to zoom the map is with the iQue's jog dial, which is both intuitive and quick.

The on-screen map shows a good amount of detail, including non-road features such as service stations, waterways, golf clubs, etc. It also shows all nearby place names clearly, a feature missing from some other navigation systems. It would be dangerous to scrutinise the map while driving (that's what the spoken directions are for), but the high level of detail makes it excellent for examining an area in detail either before your journey, while parked up on arrival, or while walking with the iQue in hand. Aside from the scrolling map, you can always pop up a window at the top of the screen to display your current speed, ETA and time/distance to the next intersection, and can leave this information permanently on screen if desired.

The mapping software generally feels quite snappy considering the huge amount of information being processed, though planning long routes can naturally take several minutes. The response of the on-screen map to screen taps is sometimes suspended when it's in the process of redrawing, which can be a little disconcerting, but this is really a limitation of the available processing power.

Thankfully, it's possible to plan routes without first acquiring a GPS signal, so you can plan a house-to-house journey while still indoors. Planning a route is as simple as entering location details in the appropriate screen, right down to house number level, or by taking a destination directly from the appropriate Address Book entry.

Commonly used destinations can quickly be set up as waypoints for future use, and are then accessed in a mere second or two via the ever-helpful QueFind screen.

Good as the iQue navigation system is, it's certainly not foolproof. As with every other advanced GPS navigation system we've tested, without exception, the iQue will sometimes try to take you down a dirt-track road in order to shorten a journey, or take you through a convoluted route just to get you to the other side of town. The important point with all current GPS navigation systems is to have realistic expectations of what the software can do, and to scrutinise calculated routes by applying a little common sense and logic.

At such point that handhelds have 10 times the processing power and 10 times the storage capacity of current models, we can expect route planning accuracy to be far better, as the dataset for each map will be able to include more comprehensive details of precise road widths, to a level whereby usable minor roads will be properly distinguished from unpaved tracks.

The bottom line is that if you want a Palm OS handheld to use for route navigation, the iQue 3600 presents a tightly integrated package that compares favourably with add-on third party GPS systems. Most of the imperfections in the system are similarly present in all the other GPS solutions, and most of those are far less elegant that Garmin's small, one-box unit.

The inability to separate the GPS receiver from the handheld does of course limit the range of vehicles the iQue will work with, as it's necessary to be able to get the GPS into a position whereby it can 'see' at least three satellites. If your windscreen is quite close to a vertical orientation or incorporates an embedded heating element then it may be impossible to get a reliable signal. In these instances it's possible to purchase a plug-in remote antenna from Garmin (around £100), and this can be positioned anywhere

in the vehicle, attaching it to the iQue 3600 with the long cable supplied.

The iQue's generous software bundle includes Documents To Go (though only the Standard Edition) and DataViz Mail, PowerOne calculator, StarCaddy golf scoring, Vindigo, WorldMate world clock, SplashID, Palm Reader and an Astraware games pack. The European version of the software includes 19 countries, with full coverage of Great Britain, Germany, Liechtenstein, Luxembourg, The Netherlands and Switzerland, plus coverage of major cities and inter-town connecting roads for Austria, Denmark, France, Italy and Sweden. Coverage for the remaining seven countries (Ireland, Northern Ireland, Finland, Norway, Czech Republic, Spain and Portugal) is limited to major metropolitan areas only.

Apple Macintosh users should note that, just like Palm OS models from Sony, the supplied software is loaded from CD using a Windows-only setup program, making it impossible to install the maps and voice prompt system without access to a PC.

Overall, and despite its relatively high price, the iQue 3600 is quite an endearing device. Given that most of us spend a fair amount of time driving (and perhaps even getting lost), navigation is a killer application for PDAs. Aside from the meagre memory and lack of Bluetooth, the navigation solution built into the iQue is just clever enough and effective enough to make it worth the premium price of this handheld.

Garmin iQue 3600

From: All major handheld dealers

Contact: www.garmin.com

Price: RRP £586 inc. VAT

| Quality: | ★★★☆☆ |
| Value: | ★★★☆☆ |

Treo 600

The Treo 600's predecessor, the Treo 270, was the first mainstream Palm OS colour PDA to incorporate a GSM mobile phone with high speed GPRS capability, all in a compact, lightweight package. Coming almost 18 months after the 270, the Treo 600 adds a number of worthwhile refinements to bring the marque up to date.

Stylish as it was, the Treo 270 always felt just a little flimsy, with its flip-up screen cover worryingly prone to being broken off by a hard impact. The 600 has been redesigned with a much more solid feel, despite still weighing in at only 170g (6oz). The new gunmetal grey or silver finish (depending upon phone provider) looks very businesslike indeed, and is acceptably compact and comfortable to hold.

Aside from the absence of a flip cover, the Treo 270's navigation jog dial has been removed, with a Tungsten T style 5-way navigator control centred between the usual four application buttons. The integral (illuminated) thumb keyboard is the only method of data input and, although quite tiny, most users will find the keyboard quicker and more convenient than Graffiti input.

Despite slick integration between PDA and phone, the Treo 270 had only a 33MHz processor, was a little light on internal memory (16MB) and had no expansion capability. The 600 addresses all these criticisms, with a snappy 144MHz CPU, 23MB of usable memory and a standard SDIO expansion slot. As well as the usual headset socket, the Treo 600 also incorporates a 640x480 digital camera. An MP3 music player is available on registration, though you'll need to supply your own stereo headset.

The camera integrates nicely with the telecommunications side of the device, and it's the work of only seconds to take a quick snapshot, save it and then send as a multimedia message. Snapshot is the key word here, as the flash-less camera gives disappointing results under anything other than ideal (i.e. bright) lighting conditions.

When switched on, it's evident that the Treo 600 has more similarities with the 270 than it has differences. The big disappointment is that the screen resolution is still only 160x160 pixels, though the colour palette has been extended to 11.5-bit (3375 colours), thankfully compatible with 16-bit depth. Perfectly usable, yes, but this is the only modern Palm OS model not to incorporate at least 320x320 resolution with 16-bit colour, and one can't help cringing just a little at the blocky resolution of on-screen text and unspectacular rendering of photographic images.

One important area of improvement however is with the screen technology employed. Using the Treo 270 in bright sunlight could be very frustrating, as the display got washed-out to the point of being unreadable. The CSTN backlit Treo 600 screen suffers no such malaise, and is perfectly readable under any conditions.

Screen criticisms start to pale a little once you begin to use the Treo 600 for its intended purpose. This may not be the most advanced Palm OS handheld around, but its telephony integration is a real joy to behold. The Treo 270's excellent Speed Dial system, showing 10 huge on-screen buttons at a time for quick access to commonly-used phone numbers is better than ever. It has now been extended to include shortcuts to web addresses and programs, turning this newly-christened 'Favourites' application into a veritable control centre for day-to-day phone use.

Significant for any phone device, the battery life of the Treo 600 is superb, with it easily running for a full day of heavy use without recourse to a charging socket.

A few screen taps from switch-on pops up a pick list of all recent calls, access to a comprehensive call log, and a big on-screen keypad that's much more convenient than dialling with the thumb keypad. Integration with email and the updated Blazer web browser is tight, plus excellent SMS text messaging support and the aforementioned photo messaging. Both GSM and GPRS protocols are available, and the phone is quad-band, ensuring that it works virtually anywhere. Web browsing on the small Treo screen is best limited to handheld-friendly sites, but Blazer does a generally good job of rendering pages.

Aside from the phone side of things, there's virtually no change from the built-in Treo 270 software package, other than the update to Palm OS 5.2.1. All the old favourites are there, with Handspring's slightly modified version of DateBk3 in place of the usual Palm OS Date Book. There's no option to use the standard Palm application instead (as was possible with the old Handspring Visors), but this enhanced application provides a lot of extra functionality and display views without getting over-complicated. Also present is the excellent Handspring calculator application (a cut-down version of the now discontinued Parens), which incorporates unit conversions as well as standard calculator functions. The City Time application rounds things off with a workable world time clock with graphical display.

To maximise the friendliness of the Treo 600, there's a decent on-screen tutorial to get novice users up and running with minimal fuss, covering such things as keyboard basics, 'top 10 fun features' and some general navigation tips.

Currently available in the UK only via the Orange phone provider, the UK version of the Treo 600 (renamed the Orange Treo 600) is supplied with a suite of Orange software for online backups and download of ringtones, images, etc. A USB sync cable and a 32MB MMC memory expansion card are provided, together with a sturdy reinforced nylon slip case.

Despite the screen criticism, it's hard not to like the Treo, especially given its exceptionally low price when purchased with certain phone contracts. Without major fanfare it manages to do virtually all that's needed in a hybrid communicator, while keeping things as simple as practical for such a powerful and flexible device.

Treo 600

From: Major phone dealers

Contact: *www.palmone.com / www.orange.co.uk*

Price: Around £100-£230, with contract

Quality: ★★★★☆

Value: ★★★★⯪

Sony Ericsson P900

Conceived as the ultimate integration of handheld computer, phone, camera and MP3 player, the Sony Ericsson P800 communicator has been something of a success story. Over the last six months, sales of the P800 have crept up to the point where they're proving a very serious competitor to Pocket PC and Palm OS units. And now we have the P900, with a myriad detailed changes. Armed with the Office software that's now starting to become available (see page 19), there's no reason why this unit can't replace a traditional handheld for most tasks.

At its heart, the P900 has version 7 of the multi-tasking Symbian operating system, a descendant of EPOC, which ran on Psion palmtops from 1993 onwards. With no physical keyboard, it's very much in the same boat as many other PDAs, relying on stylus input via the Jot system or via an on-screen keyboard, both relatively slow when it comes to inputting lots of text. Where it scores over other handhelds is the integrated telephony. As with the P800, this is a true communicator, with exemplary support for sending and receiving images, audio, video and documents over email and MMS.

We covered the P800 in full in issue 4, so the form factor and concept should be familiar. The P900 has been redesigned to look and feel a lot more businesslike, with a more boxy form factor that's fractionally smaller in each dimension, giving an overall size of 57x115x24mm (2.24"x4.53"x0.94"). The flip cover is now 'active', with buttons that are wired up and connected by a ribbon cable that spirals round the inside of the flip hinge. This arrangement feels more solid, with a positive button action, but lacks the elegance of the P800's 'no cables, nothing to break' approach. In addition, the option for removing the flip is now purely for those skilled in neurosurgery, and we'd

recommend leaving it on. The new flip is also smaller, making the 'flip closed' screen size a perfectly square 208 pixels, but also leaving more of the sensitive touch-screen open to the elements.

The other hardware changes are relatively minor, with welcome rubber caps protecting the headset, external aerial and Memory Stick Duo expansion slot, and a slightly gimmicky mirror just below the camera lens on the P900's back (for better framing when filming yourself). The 'love it or hate it' toothpick stylus of the P800 has been banished in favour of a conventional PDA stylus. The processor speed has been kept at 156MHz, set to make a good compromise between outright speed and battery life. In typical use (PDA and phone), the P900 easily lasts a couple of days on a single charge. As before, there's 16MB

One of the P900's four pre-loaded 'themes', with more supplied on CD

Music Player's facelift, complete with useful track slider

of execution memory (RAM), sufficient for most uses, and even starting memory-demanding games rarely means having to close down other running applications.

Turning the P900 on reveals that the screen technology has been changed, from frontlit to 'variable intensity backlit' TFT (black when off). In practice, it's brighter and with more vivid colours indoors (including a full 16-bit palette), but suffers from a murkier contrast outdoors. A familiar trade-off.

There are a lot of claimed small improvements in the software, although owners of older P800s should note that simply upgrading to the latest firmware (currently R2D02) gets them some of the changes for free, e.g. better music management, full-screen views for audio, video and Internet. The P900 runs the latest version 2.1 of UIQ, Symbian's latest interface and application set. The most obvious differ-

ence is cosmetic, with advanced personalisation of the entire user interface using themes. Each theme comprises a complete set of backgrounds, skins, ringtones, etc., although their only practical use is to use them like the 'profiles' on a Nokia phone, with one theme for meetings, one for outdoor use, and so on.

All the multimedia applications have been upgraded beyond the latest P800 firmware. Video Player and Music Player (used to be 'Audio') have been given facelifts and sliders, for moving to a specific point in a track. Performance is better too, with Video Player resampling movies in 'wide-screen' mode much more smoothly.

The P800's CommuniCam application is now CommuniCorder because the P900 supports video recording, although we're talking very low-grade 176x144 pixel encoding here, not DVD. Movie quality is

much worse than custom-encoded footage made in Quicktime Pro at the same frame size, mainly because of the limited processor power available on the handheld. 'Message picture' and 'Message video' modes in CommuniCorder allow taking a picture or recording a movie and sending it via MMS with just one click. A very simple 'Edit' mode allows you to annotate photos before transmission.

There's a welcome new 'Contacts manager' within Contacts itself, allowing easier bulk filing of contacts into different categories (previously, each had to be assigned individually). The File manager utility sounds like a good idea, but it presents a deliberately simplified view of the P900's folder structure—power users will want to stick to their third party alternatives.

The P800's connectivity options, to other local devices and to remote servers, were already impressive (Bluetooth, infrared, MMS, IrOBEX, etc.), and the P900 adds FTP over Bluetooth. The Java engine has been upgraded to MIDP 2.0, which includes the Audio Building Block (ABB), allowing Java developers to use audio and video in their own applications.

The rest of the software suite is almost identical to that in the P800, including the main PIM applications and a good assortment of file viewers. Although primitive at times, the very presence of the viewers means that you can copy on (or have emailed in) almost any file and have it at least readable on-screen. A playable demo of VRally for UIQ is included. and impresses by showing a terrific frame rate for a full 3D game in 16-bit colour.

Finally, in addition to the usual cradle, spare styli, stereo headset, belt case and flip replacement cover, there's a small screwdriver (for removing the flip, if you feel brave) and a complimentary 32MB Memory Stick Duo (the P800's was 16MB).

Despite a few misgivings over the new design of flip, it's difficult to see the P900 being anything but a success for Sony Ericsson. The built-in software is extensive and now fully mature, there's a veritable torrent appearing from third parties, and the form factor is just about perfect for a take-anywhere communicator.
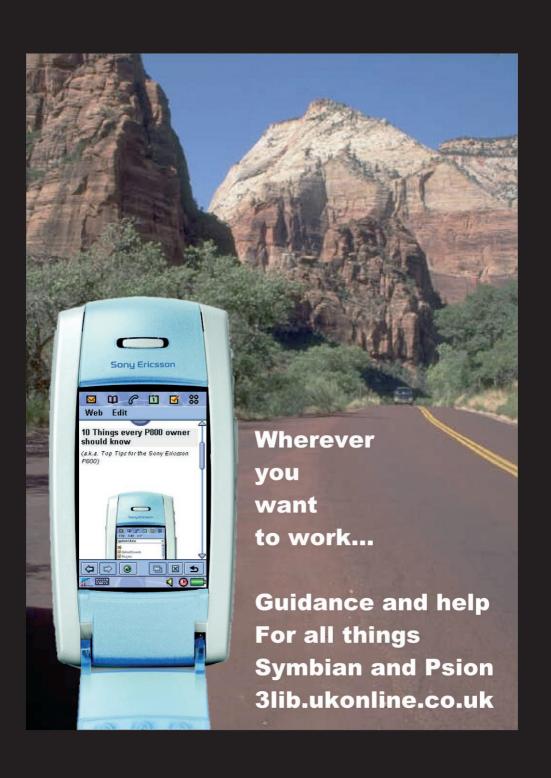
Sony Ericsson P900

From: All major phone dealers

Contact: *www.sonyericsson.com*

Price: Around £150-£300 with contract

Quality:	★★★★⯪
Value:	★★★★☆

Sony Ericsson

10 Things every P800 owner should know

(a.k.a. Top Tips for the Sony Ericsson P800)

Wherever
you
want
to work...

Guidance and help
For all things
Symbian and Psion
3lib.ukonline.co.uk

Catching a virus

Can your handheld be infected by a virus? We separate fact from fiction and offer some practical advice

Assuming that you use a Windows PC, you're most likely all too familiar with the headaches caused by computer viruses. Even if you've never succumbed to one, you've almost certainly spent some money on anti-virus software and are probably quite wary whenever you open an email attachment from an unknown source.

Viruses in the hand

The big question is, of course, whether handheld devices are prone to viruses. If so, what can (or should) we do to stop them and remove them?

First off, it's important to understand that handheld devices are immune from the viruses, worms and malicious code designed to attack Windows PCs or any other desktop operating system. Because handhelds are designed with their own, completely different operating systems, any desktop viruses simply won't and can't work, for the same reasons that you can't load and run your desktop computer's software applications on your handheld.

Careful what you launch

For practical purposes, the most likely way for a handheld virus to be delivered is in an executable file. In other words, something that appears to be an application. By launching a program that was designed

with malicious intent (also known as a trojan), it would be free either to load itself into memory at that point, ready to cause future damage, or to cause immediate damage by deleting or corrupting files, for instance.

Don't panic

The good news is that only one notable virus of this type has appeared to date (for Palm OS, a few years back), and it was not widespread. A few other suspect programs have been discovered in recent years, but they have all been too localised to warrant any real concern.

Practical precautions

Because most files arrive on your handheld during the process of installing new software, the biggest precaution is to download software only from known software vendors' web sites. The Palm OS virus mentioned above was propagated via an illegal *warez* site, and these should naturally be avoided like the plague, as should files from file sharing groups and newsgroups. If you take this advice, your chances of accidentally downloading a damaging program are very small. Remember that if you're in the habit of swapping files with other users, be it by infrared, Bluetooth or any other means, you may also be exposing yourself to some degree of risk.

Suspect files

If it's *files* you're exchanging rather than software, there's far less chance of trouble, as files are normally launched from within a known application, where they have no opportunity to do anything unexpected. The exception to this is with any kind of file that appears on your handheld 'desktop' as a launchable icon, as it may in fact be a malicious program masquerading as a harmless data file. In these cases, launch the file from inside the relevant application rather than your handheld's desktop, to be sure that it is indeed the file type it purports to be. You can be sure that it's quite safe to exchange electronic business cards, appointments and contacts.

In perspective

If all this talk of possible problems and infections is making you nervous—don't be. Although it obviously makes sense to take a few basic precautions, none of us at Palmtop Publications have ever come across a handheld virus or other malicious program on any handheld device, which may help to put things into better perspective. That's not to say that viruses are not a hazard for handhelds—more that they have not thus far become a real problem.

Backups, backups, backups

An aspect of computing that you should take seriously on both desktop and handheld devices is *backups*. Tedious as it is to maintain a diligent backup regime, a good set of backups gives you maximum protection against viruses, as well as the more obvious data loss due to hard resets or physical loss of your handheld.

Get into the habit of archiving all the folders on your desktop computer that relate to the backups of your handheld. Keep at least monthly archives, so that in the worst case scenario you will be able to restore 'clean' copies of all your programs and files, even in the event that you were first infected some months ago.

Anti-virus software

A number of anti-virus programs are now available for handhelds. Such programs may become as vital as desktop anti-virus software in the undesirable event that handheld viruses become more commonplace, perhaps inevitable as handheld operating systems get more powerful and more complex. Authors of such software will argue that now is the time to take precautions, rather than when disaster strikes, but for most of us the threat of a virus is sufficiently low that the simple precautions outlined above should suffice.

Some desktop anti-virus software is now capable of scanning handheld files on your PC, so it's sensible to enable this option if you have it.

The bottom line

Ultimately, all the information that you keep on your handheld and consider vital should be duly backed up, regardless of any virus threat. If you're still feeling nervous then you might like to look into anti-virus software for your PDA, but be aware that no anti-virus software can be 100 percent infallible, and a little thought into what gets loaded onto your handheld may stand you in better stead than simply loading up an anti-virus program and then sitting back complacently.

More than text, more than pictures

An introduction to Multimedia Messaging and how to use it on your handheld

T his being the year 2003, we can't imagine anyone being unfamiliar with SMS ('text') messaging, with billions of the things being sent each month, and not only by teenagers, either. One of SMS's biggest benefits is that it's immediate and yet non-intrusive. As with email, the recipient can read a message at his or her convenience but, unlike email, the recipient doesn't have to use an email client to poll a POP3 mailbox. Of course, there's a catch, and that's the restriction to just 160 characters. Which brings us neatly to MMS (Multimedia Messaging Service).

MMS was designed as part of the '3G' mobile telecomms world, the always-on, video-enabled and so far rather expensive service being pioneered (in the UK at least) by Hutchison 3G ('3'). It seemed a logical evolution from SMS over '2G' services (standard GSM), to add images, audio and even video clips in creating a next generation messaging system.

The thing is, 3G was taking so long to get established that most network operators decided to make their newly-programmed MMS centres also available to people with

more traditional handsets, thus starting to recoup some of their considerable invest-ment in 3G by way of MMS charges. The keys to making it work were the take-up of GPRS (always-on, network-hosted Internet access for mobile phones), the success (finally) of WAP, in the form of services such as Vodafone's Live!, and the emergence of camera-toting handsets.

What's needed for MMS?

Owners of Symbian-based communicators and smartphones may have been trying out MMS for over a year now, but there's no reason why Palm OS and Pocket PC handhelds can't also be involved to some degree. The chances are that you already own a mobile phone that works with GPRS. If you've dismissed this service in the past on cost grounds then be aware that prices are falling all the time, and that you can now get GPRS access on humble pay-as-you-go tariffs. As an example, no-contract GPRS access to Vodafone's Live! Service (and for MMS use) is currently charged at only 0.1p per kilobyte of data uploaded or downloaded.

Armed with a suitable MMS application, there's no reason why you couldn't send basic MMS messages today. Receiving MMS is currently slightly trickier, in that the phone in a two-box solution won't know that the handheld nearby is better at handling the message and so will keep it to itself. Doubtless this limitation will be lifted in time, as new GPRS firmware and handheld OS versions become available, and in the meantime you can still receive MMS from other people via a standard email account. True communicators, such as the Sony Ericsson P800 and P900, the O_2 XDA and the Handspring Treo range, are all well equipped already for sending and receiving MMS.

There's plenty to set up for MMS, but it's usually done quickly 'Over The Air'

How does MMS work?

Like SMS before it, MMS relies on a 'service centre', run by your mobile network operator (e.g. Vodafone). After composing a message, your MMS application sends it (using standard WAP techniques) over a GPRS connection to the service centre, which checks the contents are valid and within the appropriate limits. If the recip-ient is an email address, the MMS is sent on immediately as a set of attachments to a standard email. If the recipient is another mobile phone number, a system message is sent out saying that an MMS message is waiting to be delivered and then (either manually or automatically) a WAP GPRS connection is made to the service centre and the full message is downloaded.

A charge, typically around £0.30 in the UK, is made by your service centre operator for each MMS message sent.

Preparing to send a batch of pictures using Pixer on a Palm OS handheld

Ready to send a document file and video clip via a Sony Ericsson P800

What can an MMS contain?

An MMS message can include any combination of text, pictures, audio/voice, video clips and even binary document attachments, all in a single message. In practice the network operators don't want you sending big video clips through their service centres, so there are usually restrictions in place. For example, Vodafone currently limits each MMS to around 30K in size, usually enough for a picture with accompanying text message (typically up to 1000 characters) and a short voice note. As you might imagine, you can't fit much video content into 30K, although the current limits are set by marketing and bandwidth considerations and there's no reason why they couldn't be raised significantly in the future.

Setting up WAP and GPRS

The process of setting up the WAP/GPRS connection used to be a rather complicated affair, but the networks are getting much better at simplifying things these days. For example, setting up a mobile for MMS via Vodafone means only a couple of minutes on the Vodafone web site: you tell the wizard your handset, price plan and phone number, and a few seconds later an 'Auto setup' message arrives on your phone. One button press or stylus tap later and all the dialogs and options have been filled in for you. Job done.

'Over The Air' (OTA) configuration really has arrived and works well, although it's a good idea to make a separate note of the supplied settings, just in case.

Palm OS and Pocket PC

As mentioned above, MMS on Palm OS and Pocket PC handhelds is only possible through the use of the third party Pixer application (*www.electricpocket.com*), allowing the composition and sending of basic MMS messages (usually just images and text) via a built-in or external wireless phone/modem. Also mentioned earlier, communicators such as the Handspring

Treo or O$_2$ XDA can also receive MMS messages, with Pixer intercepting the MMS-waiting message and handling the WAP/GPRS download. On standalone handhelds, reception isn't currently possible and you'd have to pick up MMS using email, with a client that handles attachments properly (such as VersaMail or SnapperMail).

Psion and Symbian

There are currently no MMS applications for either Psion palmtops or the Nokia 9210i communicator. The latter claimed picture messaging when it was launched, but it turned out that Nokia was referring to a proprietary system of its own (which never took off).

Subsequent Symbian communicators and smartphones fare much, much better, with full two-way MMS-support built into the operating system. All Nokia's Series 60 phones and the new breed of UIQ devices, such as the Sony Ericsson P800 and P900, contain 'Send as MMS' functionality in most programs, and have a built-in Message application for creating new MMS messages and viewing received ones. These messages can include the full gamut of pictures, text, audio, video or attachments.

Missing SMS?

Going back to SMS, if you've got a Symbian smartphone it's already built-in. Most Palm OS handhelds also have a bundled SMS application—if not, try funSMS (see below) or MobileSMS (downloadable from *www.handango.com*). PhoneMan (*www.zenobyte.com*) is available for both Psion and Palm OS.

Pocket PCs only come with SMS applications in the Smartphone edition. Otherwise, there's IA PHone Manager (*www.iastyle.com*) or Simple SMS (*www.visualit.co.uk*).

Top Ten Tips:

WORD PROCESSORS
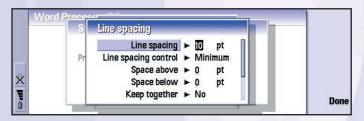
Word processors are an immensely powerful tool for your handheld computer. Here's our top 10 tips to help you get the most out of text processing on the small screen...

Perhaps more than any other application, word processors for handheld computers span a vast range of functionality, from notepad-type applications that are really not true word processors at all, to sophisticated programs that rival some desktop-based systems. Some PDAs come with a word processing application as standard, whereas others, most notably some Palm OS devices, require separate purchase of a third party solution. Here are our top 10 tips for handheld word processors, most of which are applicable to all platforms.

users still laboriously apply formatting to text by hand. If your handheld word processing application supports the use of *styles*, and most do, you can easily set up formatting options for each kind of text: body text, headings, subheads, addressee details, footnotes, etc. A few minutes spent setting this up will allow you to apply all the necessary attributes such as font size and type, margins, indents, bold, italics, and so on, sometimes with as little as one or two screen taps or menu selections. This is one of the most fundamental word processing techniques to learn, so examine your program's documentation and get to grips with the basics as soon as you can.

1 Use a little style

Much of the benefit of using a modern word processing application in place of an old-fashioned typewriter comes from automating the process of formatting your text to make it look good. That said, a surprising number of word processor

2 Easy templates

Templates go hand-in-hand with the use of styles, as they help you to complete frequently-used documents with the absolute minimum of effort. It's not even necessary for your word processor
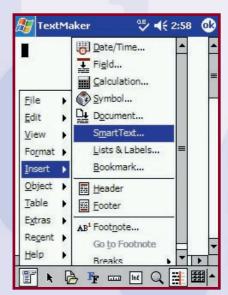
Nokia 9200 series devices allow for a wide range of reusable style sheet settings

to have a specific 'template' feature in order to take advantage of them. To create a template for, say, a standard business letter, just take an existing letter that you've created in your handheld word processor and strip out all the text that's specific to that particular document, such as the body of the text and the name and address details. It's a good idea to replace these items with placeholders, such as "????", so you're reminded that these blank items will need to be filled with specific text for each new document. Leave in all the items that are unlikely to change with each letter, such as the salutations, your return address—maybe even the date. If part (or even all) of the body of the letter is boilerplate text that you tend to reuse often, you can leave that in as well, perhaps saving a whole range of templates for each type of common letter type you use.

Once this basic skeleton of your standard letter is complete, save it with a suitable name (maybe in a separate folder to your usual documents), ready for re-use. When using the template, the really important thing to remember is to use 'Save as...' to re-save a copy of the document *before* you start adding new text, otherwise you might accidentally overwrite your template. Every time you create a new document, open the template, re-save it immediately with a new document name, then type in the details of your new letter, saving as usual when complete.

Setting up a text shortcut in TextMaker, the most powerful handheld word processing application currently available

built-in Palm ShortCut system or the excellent TextPlus (*www.smartcell.com*), while for Pocket PC users there's CopyText Pro (*www.biomobility.com*), or the SmartText feature built into the full-featured TextMaker word processor (*www.softmaker.de*).

4 Spell it out

It's always worth giving your word processed documents a quick run through with a spelling checker, even if you consider yourself a competent speller. If your handheld word processor doesn't include a spell checker as standard, there are add-on programs available for Palm OS and Pocket PC that will allow you to spell check text in virtually any application. For Palm OS try LexSpell (see page 15), and for Pocket PC, PhatSpell (*www.phatware.com*) does a similar job.

3 Speedy shortcuts

Making good use of styles and templates will help you to speed up the creation of documents, but if you do a lot of word processing you'll save even more time by also setting up some kind of shortcut system to auto-type commonly used words and phrases for you, rather like Microsoft Word's AutoCorrect feature. For Psion devices, RMRAutoText (*www.rmrsoft.com*) works beautifully. Palm users can use the

Always think carefully before choosing a file format to save into...

latest Word 2003, to maximise backwards compatibility. If in doubt, save into RTF (Rich Text Format) if you have the option, as most word processors (regardless of platform) can read and write into this universal format.

7 Keyboard decisions

If you make a lot of use of your handheld's word processor, you'll soon get frustrated if you don't have access to a good method of text entry. A large, physical keyboard is by no means the only satisfactory option here and, in our own experience, pop-up on-screen keyboards can offer faster typing speeds (at least for short bursts) than some built-in or plug-in keyboards.

No matter what handheld you use, there are almost certainly several options available, from optimised on-screen keyboards such as Fitaly (*www.fitaly.com*) for Palm OS and Pocket PC, through miniature plug-in 'thumb' keyboards, to almost full-sized desktop keyboards that require a flat surface to rest on. Text entry preferences are a very personal thing, so experiment with a range of options if possible, and be sure to give each one a fair tryout.

5 Password repository

Most word processing programs nowadays are able to password protect and encrypt individual documents. If you don't already have a dedicated program to store your personal passwords, PIN numbers, and so on, why not consider using a single word processor file to store all such details? If you're creative with the formatting of the document you can lay out everything to maximise readability, and you can always use the word processor's find function to search for particular items if you have a lot of private data to store.

6 Sensible saving

If you plan to exchange your word processed files with others, particularly if with desktop computer users by email, take a few moments to think about the file format you're saving documents into. Most other people almost certainly won't be able to read your word processor's native file format, so be sure to save into some kind of Microsoft Word format if possible—preferably an earlier version rather than the

8 The right tools

Just because you have a powerful word processor on your handheld, don't feel obligated to use it for every little piece of text you compose. Every handheld also comes with a built-in 'Notepad' or 'Jotter' application, designed for storing quick notes with less fuss than a full word processor. Most such notepad applications have little or no support for emphases such as bold and italics, and most have a relatively small maximum file size, but they're generally quicker and easier if you're jotting down nothing more than a few brief notes. Remember, you can always use cut and paste to transfer raw notes from the notepad application to your word processor at a later date if necessary.

9 Realistic expectations

Most handheld word processors are necessarily cut-down versions of their desktop cousins. If you're a word processor power user it's important to have both realistic expectations of what your handheld program can do, and a good understanding of what formatting it supports. If you intend to share word processed files with others, be aware that the simple act of opening and re-saving a received document on your handheld may lose advanced formatting such as headers, footnotes and inserted graphics. In the worst cases, this can even upset the formatting of simple headings and body text, which can be embarrassing at best and disastrous at worst. If you're unsure of what to expect, you may like to try transferring a few test documents between your handheld and desktop computer to get a feel for how much 'round-trip' file mangling occurs. The best solutions for Palm OS all fare well in this area, with generally very predictable results, as does the aforementioned TextMaker for Pocket PC.

10 Print solutions

Even if your handheld doesn't support direct printing of documents without recourse to a desktop computer, you have a few options. PrintBoy (*www.bachmannsoftware*) provides basic printout options for both Palm OS and Pocket PC devices using infrared, serial, TCP/IP or Wi-Fi connections. Alternatively, you may be able to email a copy of your file to a local computer that's attached to a printer. For those occasions when you merely need to get a hard copy printout and quality is not an issue, consider transmitting the document to a local fax machine using suitable fax software on your handheld.

Upgrade and expand

Is it worth upgrading or otherwise expanding your existing handheld, or would you be better off with a new machine?

With handheld technology now moving along at an impressive rate and some manufacturers releasing ten or more new models in a twelve month period, many of us replace our PDAs in favour of a newer model without giving a second thought to the possibility of extending the useful life of our existing palmtop. So, is it worthwhile, practical and cost-effective to race-tune your ageing device, or are you better off simply putting the money towards a new one?

Changing times

As little as three years ago, there was a flourishing market in 'upgrade' components for Palm handhelds. Ranging from internal memory upgrades to plug-in pager devices, most were designed to get around the lack of expansion card slots on handhelds of that era.

Nowadays, almost every handheld can have its effective storage space (as opposed to internal memory space) expanded via a plug-in CF, SD, MMC or Memory Stick card, and many can accept peripheral devices such as Bluetooth and Wi-Fi cards, pagers and GPS receivers via the same expansion slot. Most helpfully, some Pocket PC and

Sony Palm OS devices include *two* expansion slots, making it practical to add (say) a CF Bluetooth card without the inconvenience of having to remove an SD or Memory Stick storage card first.

If you're buying a device from new, it's worth thinking about what expansion options you're likely to need in the future, but many first-time buyers only get a real grasp of this when they've had a chance to try out their new device for a few weeks or months.

Hardware add-ons

If you've owned your current handheld for much more than a year, the chances are that some of the expansion options (such as Bluetooth or Wi-Fi) were not even available when you made your purchase. Most are now available as plug-in SD or CF cards, provided that you have a spare slot and provided that your model of handheld supports them.

If you're thinking of adding Bluetooth, Wi-Fi or any other new plug-in hardware, it's vital to check that the unit in question will function with your particular model of PDA. You can't (unfortunately) assume that a CompactFlash Wi-Fi card will work

in your handheld, just because it's got a CF slot free. The important thing to check is that suitable software *drivers* exist for your specific model or operating system version.

At an even more fundamental level, if you're using a Secure Digital (SD) slot, check your handheld's documentation to ensure that it is in fact SDIO rather than simply SD. SD only supports memory expansion cards, so you *must* have an SDIO slot in order to use any other kind of Secure Digital card.

Internal memory

With large capacity storage cards so readily available and prices falling steadily, you're unlikely to come up against a real limitation on storage space. Far more likely is that you'll run out of internal memory, which is rarely expandable. Although a few small companies do offer memory upgrade serv-

ices, most are in the USA, and you'll have to send off your handheld and be without it while the work is being done. Perhaps most important of all, the service tends to be relatively expensive, as the process normally involves labour-intensive dismantling of the device and soldering memory components into place.

If you're suffering from an acute shortage of internal memory space it's probably one of the best reasons to upgrade to a newer device with more memory, assuming that it's an option for your particular handheld platform. If taking this route, be sure to find out how much of the installed memory of your planned replacement is in fact free for storing programs and running applications. As an example, some Palm OS handhelds with 16MB of internal memory have less than 11MB free once the operating system overheads have taken their toll.

Before thinking of upgrading, try a little housekeeping to clear out some memory space. With Pocket PC and Symbian devices, the vast majority of programs and data files will run just as happily from a storage card as they would from internal memory, leaving most of the space free for running applications. Palm OS is less straightforward, as not all applications can be run from storage card, and data files can be put onto cards only when their parent application specifically supports it.

More horsepower

Lack of processor speed alone is rarely serious enough to warrant an upgrade. A number of software *accelerators* are available for both Palm OS and Pocket PC. They can increase the effective processor speed of your handheld by anything from a few tens of percent to as much as two or three times. Beware that there's usually a corresponding hit on battery life though, and your PDA may become prone to crashing or even refuse to work at all with certain software. Software accelerator programs

generally come with a warning that their use can 'fry' your processor and thus destroy your handheld, though we have yet to see any evidence of this in practice. Overall, software accelerators can be useful, but are best reserved for those prepared to spend a little time configuring and optimising them.

The latest OS

If your handheld is running an older version of your platform's operating system, you may be able to upgrade to the latest version, either by a downloadable *patch* that you can install yourself, or by sending the unit into a service centre. Check your manufacturer's web site for details of any such upgrades, but don't jump into an operating system upgrade without first ascertaining whether the update is worthwhile for *you*, particularly if your handheld is working well at present. Some upgrades offer huge benefits equivalent to an entire hardware upgrade, whereas others provide nothing more than a little cosmetic improvement here and there. And remember to check that all your favourite third party applications will work under the new version.

Battery death

If your handheld runs on internal rechargeable batteries, expect the life between charges to gradually diminish with use, though it's unusual for the difference to become substantial in less than a year. If your battery pack is removable then it's a simple matter to pop it out and buy a new one (though they tend to be expensive). Otherwise, it'll almost certainly need a trip to a repair centre to swap out the battery for a new one.

Repairs and upgrades

If your handheld needs to be sent for repair, a few hardware manufacturers offer an upgrade service, whereby your old unit can be traded in for a newer one at a favourable price. Before spending lots of money on fixing your old PDA, consider whether the money might be better put towards a newer device or trade-in program.

Another important factor is that handheld prices are gradually falling, so the latest state-of-the-art palmtop may well cost little or no more than your ageing PDA with older technology and fewer expansion options. Don't buy expensive add-ons for your existing device before checking the price of a new handheld that has everything you need built in from day one.

Satisfaction

With so many new devices appearing with enticing feature lists and impressive specifications, it's all too easy to get caught up in 'upgrade fever'. By all means upgrade to a new machine if it's going to provide *real* improvements over what you're using now, but there's little point in trading in an old handheld that still does everything you need.

Partly fuelled by the deluge of new machines coming on the market, you'll probably find that the second-hand value of your old PDA is less that you'd have liked. On the other hand, with so many used bargains available, you might wish to consider upgrading to a higher-spec used machine.

Regardless of whether you try to eke the maximum life from your existing handheld or plump for regular upgrades, the most important consideration is that you're getting good value from owning a PDA. If it's making you more productive or otherwise enriching your life, its purpose will surely have been served.
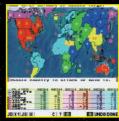
The GAME ZONE

The hottest new games on the handheld scene...

All of these games are either new or have been significantly upgraded recently. Although colour screenshots are shown where possible, most games also work in monochrome.

AGGRESSION (Palm OS)

A version of the ever-popular Risk strategy boardgame for your tiny handheld? That's the aim of Aggression, though the finely-detailed 'board' and poor use of too-tiny fonts turns this into a recipe for acute eyestrain rather than world domination. A hideous user interface and the requirement for pinpoint accuracy when selecting screen elements make life doubly hard for would-be strategists. If you can live with the interface, gameplay is surprisingly good, as you deploy and move your forces around the globe, attacking and counterattacking your opposing armies. The program's authors take pains to emphasize that this is very much a work in progress, and that a greatly improved UI is on the way. At that point, aggression should become quite addictive, just like the original, $18 from *www.blitgames.com*.

MINIPOLIS 2 (Palm OS)

Based on 'Anti-Monopoly', the program authors go to great lengths to explain that this isn't a Monopoly clone, and thus doesn't infringe any copyrights. Background story aside, it's a game that Monopoly fans will love. Delightfully colourful cartoon-like graphics and a good interface make this eminently playable on the small screen. There are a number of significant differences between these and normal Monopoly rules, so you'll need to use a different strategy in order to win, but this fresh take on the old game is part of the attraction of MiniPolis 2. Even if you long-since tired of Monopoly, you'll probably still enjoy this. $20, from *www.pdatreasures.com*.

CALYPSO (Palm OS)

Billed as a game that "requires careful visio-spatial planning", but don't let that put you off. Probably best described as 'hexagonal Tetris', all the playing blocks are comprised of joined-up hexagons, in similar shapes to Tetris pieces. As you place the new blocks that appear to the left of the screen and thus cover all the background hexagons of a given colour in the playing area, you progress towards the next level. Easy to learn, very colourful and unusually addictive. Available in hi-res, low-res, colour and monochrome versions. $15, from *www.fun4palm.de*.

WARFARE INC. (Palm OS/Pocket PC)

It seems that in each issue we now report on at least one impressive new real time strategy game. This latest jaw-dropper sets you up as a mining specialist in a sci-fi world, tasked with extracting resources to expand your empire and build forces to quash the rival OMNI Corporation. There are no aliens to battle, and your enemy is equipped with the same infantry, vehicles and weapons as you are, but there's still plenty of interest, with 14 varied missions centred around an intriguing plot-line. Some RTS games can be longwinded to learn, but Warfare Incorporated requires no such tedium, getting you straight into the action via a learn-as-you-play interactive tutorial, introducing new units and techniques at each mission. There are three difficulty levels to choose from, making it suitable for all levels of expertise. A slick and entertaining graphical feast that runs in either portrait or landscape mode on either platform. $30, from *www.handmark.com*.

CANDY TRAIN (Palm OS/Pocket PC)

A clever variation on the classic Pipemania, Candy Train has you shifting sections of railway track in front of you to keep the locomotive, quite literally, on track. To make things more interesting, you need to pick up new carriages along the way, then drop them off at the station to grab bonus points. Colourful graphics and a delightfully cheesy soundtrack all add to the appeal, making this a fun game for both young and old. $10, from *www.astraware.com*.

MARS NEEDS COWS (Palm OS/Pocket PC)

As well as a brand new update to the original Palm OS version with full music soundtrack, this immensely addictive and original puzzle game has just been ported to Pocket PC. As an alien creature, your mission is to abduct a variety of farmyard animals by coaxing them to the centre of their field, in position for you to beam them into your flying saucer. Watch out for the foxes and farmers, though, and abduct only the animals you're instructed to. A series of *2000* logic puzzles that's all far more entertaining than it sounds, this is one of the most enduring games of its kind. $15, from *www.astraware.com*.

TRIAL CHALLENGE (Pocket PC)

One of all too many excellent games that over-cripple their 'demo' version and thus make it hard to appreciate the game's finer points before frustration sets in. Fiendishly difficult to play at first, Trial Challenge has you manoeuvring a trials motorcycle over a varied array of urban obstacle courses. Controls are throttle, brake, 'lean forwards' and 'lean back', with the first two nicely imple-

mented simply by tapping on pre-set areas of the screen. These 'hotspots' aren't marked on the screen, avoiding loss of real estate for the main display. Trial Challenge is lots of fun to play once you start to get the hang of gentle throttle control and leaning in the right direction to stop your bike from toppling over. The realistic sound effects, catchy soundtrack and video cut scenes all add to the atmosphere, and 15 levels, adjustable bike settings and a championship mode all help to keep up the interest for game after game. $20, from *www.clickgamer.com*.

COUNTER SHEEP (Pocket PC)

If parachuting sheep into battle with jetpacks, cannonballs, bombs and nuclear missiles all sounds like something from a cocaine-induced hallucination, don't worry—this *is* a weird game. But weirdness isn't always a bad thing, and games certainly don't come any more original than this. After a little initial frustration figuring out how the game mechanics work, this turns out to be an absorbing turn-based battle with a distinct comic touch. Much of the learning curve involves getting the hang of shooting your weapons and directing the jetpacks of your ovine paratroopers, which have to be set for altitude as well as trajectory on the 3D-style play area. Fun animations, plenty of weapon power-ups and a good range of difficulty levels to help ease you into play. $10, from *www.ozcreations.com.au*.

DARXIDE EMP (Pocket PC)

A traditional space shoot-em-up from the makers of the classic 1970s Elite, this latest version of Darxide EMP has just been expanded up to 16 levels and the price dropped by almost two thirds. Best described as a souped-up 3-D version of the Asteroids arcade game, this is simply miles better, with slick rendering, frenetic action and atmospheric sound effects. You get to shoot various alien ships and rescue the floating miners as well as just blasting asteroids, and there are plenty of ship upgrades to be grabbed, adding a good element of strategy to the mix. £4.50, from *www.frontier.co.uk*.

DONE IN 50 SECONDS (Pocket PC)

Some of the oldest, classic games are still undoubtedly amongst the best, but a bit of a facelift never hurts. Done in 50 seconds is an up-to-date take on the hugely popular Sokoban, a simple multi-level puzzle that had you pushing crates around a warehouse into pre-defined target areas to progress onto the next level. The aim here is to 'steal' a specified car from the car park by moving other vehicles back and forth to clear a free path to the exit—all within an allotted time limit. Smooth, animated movement and crisp, colourful graphics make this a lot more attractive than the original, but just as addictive. More than 60 levels of increasing complexity, from easy to mind-numbingly tough. Whether you played the original Sokoban or not, this is a must-have for puzzle lovers. $15, from *www.clickgamer.com*.

ESCAPE VELOCITY (Pocket PC)

From the title it sounds like it might be a shoot-em-up, but it is in fact a Pipemania variant, but taking a totally different tack to Candy Train, on page 62. Tap on the pipes to rotate them and hence connect the fuel pods to the rocket ignition system. There's an element of Tetris in there too, with whole pipe sections disappearing as you make links from the fuel pods on the left to the rocket on the right. If you connect multiple fuel lines at once you'll get a bonus, and as you progress through the levels you'll see bigger and better Jules Verne-style rockets on the launchpad, though they're just for effects, and not part of the gameplay. An attractive and very modern version of the classic, with great graphics and sound effects, and a catchy soundtrack. $10, from *www.clickgamer.com*.

MINESWEEPER (UIQ)

One of the classic computer puzzle games, Minesweeper has just a single, almost monochrome screen, no fancy intro, no sound effects or animations. And yet it's almost the perfect game for the P800/P900. Small enough to leave in memory all the time, switching back whenever you've got a minute or two to continue a puzzle—even a full game takes only 10 minutes or so on the hardest level. The gameplay is familiar, blending strategy, logic and luck to good effect. An unspectacular conversion, but very playable nonetheless. $10, from *www.top321.com*.

GAMES PACK 2 (UIQ)

Wahay! Space Invaders, Asteroids, Frogger, PacMan and Breakout, all in one game pack and all on the P800/P900. Well, almost. Games Pack 2 does include versions of all of the above, and they're very competently and faithfully recreated, right down to the last beep, but do please note that they're not stylus driven at all. In other words, all control of the spaceship/paddle/whatever is done with the standard 5-way Jog Dial, a great idea in theory but rather worrying for the long-term reliability of this control. Let's hope Sony Ericsson repair centres aren't overwhelmed with customers wearing out their Jog Dials. Incidentally, Games Pack 2 is written for the popular AppForge Booster engine, which has the unfortunate side effect of closing the pack down whenever another application or dialog is brought to the foreground. Perhaps one for gung-ho 1970s die-hards? $15, from *www.mastersoftmobilesolutions.com*.

DIGTUMULUS (Series 60)

Head on back to Ancient Egypt with this arcade puzzler. A loud music loop generates the right atmosphere, while your hero dashes about the pyramids collecting charms and treasures, opening secret doors and trying to avoid being captured by spooky walking skeletons. Good stuff, and it all works very well using just the navigator control. The trial version (generously) allows the first five levels to be played, with another 30 available once registered. Once you've mastered the game on the 'Easy' setting, you can try it again on 'Medium' and 'Hard'. Our only gripe would be that sometimes the controls can be just a little too fiddly, leaving the hero scrabbling at a door's entrance just a few pixels away from safety. $13, from *www.cavesoft.com*.

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Calculate!

Virtually every handheld comes with a built-in calculator, but there are lots of powerful alternatives available...

Your handheld almost certainly came with some kind of built-in calculator application, even if it's nothing more than a basic four function (plus, minus, multiply and divide) affair. If you find yourself needing more, there are plenty of third party alternatives, covering everything from advanced scientific calculators to comprehensive unit conversion programs.

One box or two?

Things have come a long way since the first four function calculators of 30 years ago, then priced at £50 or more. Most major newsagents now stock this type of calculator for only a few pounds, with elaborate scientific calculators generally costing no more than a few tens of pounds, so some might argue that it's better to spend £10-£20 on a decent desktop calculator than pay a similar amount for an add-on calculator that runs on your PDA.
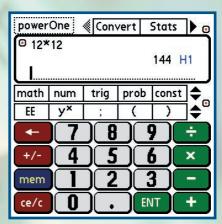
One advantage of having everything on your PDA is that most handheld-based calculators will allow you to copy and paste values between applications, so you can copy your calculated results wherever you wish. This convenience usually balances out the few seconds it takes to switch to your calculator application.

Another factor to consider is that some of the conversion features available for handheld calculators aren't readily obtainable in stand-alone calculators. If you work in a profession where you perform a lot of custom conversions, you may be pleasantly surprised to find that a suitable application already exists for your palmtop.

Palm OS

A huge array of calculators is available for Palm OS. The biggest range comes from **Infinity Softworks** (*www.infinitysw.com*), with a whole slew of well-respected products to choose from. Some have now been ported to Pocket PC (and even to Windows PCs), with more to follow. Mainstream titles cover financial, graphing, business, science and engineering calculations. A little more specialised, a pair of real estate calculators are also available, designed primarily for those in the property business, and both with a US slant. There's also a dedicated

Infinity Softworks' PowerOne Scientific incorporates unit conversions as well as all the usual scientific functions
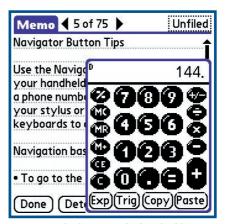
2xCalc is an excellent general purpose tool with currency and conversion support and the option of RPN

PopUp Calculator can be invoked in front of your current application with a quick button press or stylus gesture

loan calculator, again aimed at those with a day-to-day business need for this kind of calculation.

If your needs aren't too specialised, **2xCalc** (*www.wizu.com*) provides an excellent general purpose calculator with a good range of unit conversions and comprehensive currency conversion support. Uniquely for Palm OS, it allows you to use either *arithmetic logic*, as employed by most standalone calculators, or *RPN* (Reverse Polish Notation), as favoured by the popular (but now discontinued) Hewlett Packard range of calculators.

NeoCal (*www.hudren.com*) melds together a broad range of mathematical, statistical, financial, conversion and other functions into a single package, including date and time calculations.

For a good programmable calculator, **APCalc** (*www.msdsite.com/apcalc*) is worth a look, and incorporates a useful graph plotting feature. Less well known but worthy of consideration, despite not having been updated for a few years now, **SynCalc** (*www.installigent.com*) is a powerful programmable scientific calcu-

lator with an unconventional but highly usable interface.

Another product that's languished without development for many months but is nevertheless excellent, **PopUp Calculator** (*www.benc.hr*) is a basic but immensely useful tool that can be brought up in front of your current application with a simple button press or gesture, and there's even an RPN version available.

For serious graphing calculators, the range from **Adacs LLC** (*www.adacs.com*) is hard to beat, and includes products for Pocket PC as well as Palm OS.

Pocket PC

Perhaps surprisingly, the range of top-notch calculator applications for Pocket PC is relatively small. Aside from versions of some of the titles from **Infinity Softworks** and **Adacs LLC** mentioned above, a solid and attractive selection of calculators is available from **Implicit Software Solutions** (*www.implicitsoftware.com*). The company's core product is a capable scientific calculator, but its complete range includes a quadratic calculator, plus others

Implicit Software Solutions' Scientific Calculator looks good and works well —one of an extensive range of products

DMU Calculator incorporates a competent suite of business and financial tools, despite its quirky appearance

for computing linear regressions, car loans, leasing details and even tips/gratuities.

If you're a fan of RPN (discussed above), **Lygea Calculators**' (*www.lygea.com*) range of HP clones look and work just like the originals, with versions to mimic the HP12C Financial Calculator, HP15C Financial Calculator and HP10B Business Calculator.

The **CarsoCalc** (*www.carso.se*) scientific calculator looks handsome with its customisable, skinnable screen layout, and covers conversions, programmability and even macros.

Much less attractive but quite functional, **Soo Calculator** (downloadable from *www.handango.com*) sports a good range of scientific functions, plus statistics, unit conversions and graph plotting.

For business and financial calculations, **DMU Calculator** (*www.jpmsolutions.net*) handles everything from amortization schedules to break-even analyses.

Symbian

Nokia's 9200 series communicators aren't the world's friendliest devices when it comes to performing calculations. With no touch screen and all the numeric buttons in a line across the top of the keyboard, large quantities of numeric input can be inordinately tedious.

Useful for all Nokia 9200 users is **Side-Calc** (*www.kylom.com*), which pops up a calculator in front of your current foreground application with a quick hotkey combination. As well as basic functionality, it also includes common financial and business operations.

The UIQ-based Sony Ericsson P800/P900 devices are well supported by general purpose third party calculators, and are comfortable to use, thanks to their compact size and touch screen input. There's comparatively little in the way of specialised titles for this platform at present, but

Kylom's impressive MathZ scientific calculator for UIQ has an extensive feature list, complete with graph plotting

the current rate of growth in UIQ software bodes well for future development.

Kylom (*www.klyom.com*) offers a pair of attractive financial and scientific calculators, with the latter bristling with features, including graph plotting and a sophisticated equation solver. The financial calculator is also available for Series 60 Symbian devices, as is a novel joystick-operated calculator.

SciCalc (*my-symbian.com*) is a free Java-based scientific calculator that handles all the basics and has nice big buttons that are easy to use with a finger instead of the stylus.

FlexiCalc (*www.hut.fi/~mhalttu/fun/p800*) is a straightforward freeware calculator with a multi-line display and basic trig functions, with both keypad and stylus input.

Don't forget spreadsheets!

Although far less convenient for a few quick sums, spreadsheet applications are enormously flexible when it comes to performing repetitive calculations. A few minutes spent setting up a spreadsheet template will allow you to perform complex calculations involving a practically unlimited number of variables. Another advantage is that you can use the same spreadsheets on both desktop and handheld.

If you do create a spreadsheet template for calculations, be sure to double check everything *thoroughly* to ensure that you've entered all the correct variables, constants and arithmetic logic. There's nothing worse than performing a string of calculations, only to find that your template has been generating an incorrect result!

Getting to grips with

HanDBase 3

The fifth part of our beginners guide to using this powerful database application for Palm OS and Pocket PC

In the last issue we introduced the HanDBase Forms application, designed to turn your plain vanilla data entry and editing screens on the handheld into something altogether more attractive and user-friendly. In this instalment we'll add some further polish to the form and examine some of the Forms application's powerful features.
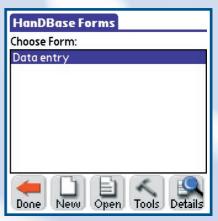
Over to the handheld...

The last time around we saved our new basic form on the PC without transferring it over to the handheld. Copy the form over now, by first opening our CD collection database from the HanDBase Forms Desktop application, at which point you'll be asked to specify which form to open. As 'Data entry' will be the only form in the list, choose 'OK'. To synchronize the file to the handheld, choose 'File | Save...', then select the device to install to from the 'Install Database To...' dialog and tap the 'OK' button. Finally, synchronize your handheld in the usual way.

Before you can use your new form on the handheld, it's necessary to go into the HanDBase application and tell it which form to use for each database, as you may have several, and can reuse the same form on multiple databases if appropriate. If you're running Palm OS, go to the 'Choose Database screen, tap once on the CD collection database to highlight it, then tap on the 'Details' button at the bottom right of the screen. From the resulting Properties screen, choose the 'Forms' icon on the right, highlight 'Data entry', then tap on the 'Done' button at the bottom left.

If you're using Pocket PC, open the CD database and choose 'DB Properties' from the 'File' menu. Then, select the 'Forms' option as with Palm OS, choose 'Data entry' from the list, and tap 'OK' at the top right of the screen twice.

Selecting the form to use with our CD database (Palm OS)

A little tweaking

To check out our form, open the CD collection database. From the list view, tap on any database record and you'll be transferred to your colourful new data entry/editing screen.

Hopefully, all the screen elements will be where you want them. If you'd like to make a few changes, you can either go back to the HanDBase Forms Desktop application and shift things around there, or do it directly on the handheld, simply by dragging items around the screen. You can't of course do this from the regular data entry screen though. On Palm OS you'll need to go to the screen shown on the previous page and choose the 'Open' screen to take you into the editor. If you're running Palm OS the PDA-based component of the forms application is an integral part of the HanDBase application. In the current Pocket PC version, HanDBase Forms is a separate application that you'll have to install from the desktop, so you'll need to exit the database and go into the standalone forms editor application.

Our basic form running under Palm OS

At present, the forms editor on Pocket PC can be inordinately slow when moving elements around the screen. Also, we've found that the Pocket PC forms application can occasionally crash, from time to time even corrupting the form currently being edited. This is understandable given that it's a Beta pre-release, though it's been in this form for some months now.

Assuming that you need to do a little tweaking to the position of the various fields and text boxes, try it out on the handheld screen and do some experimenting to get a better feel for the interface.

Regardless of where you do the editing, the results are ultimately the same—with a little practice you'll be able to create beautifully elegant database displays with everything laid out it a clear and appealing manner.

We'll leave this basic introduction to the forms editor for now, but in a future instalment we'll look at its more advanced features and how we can apply them to a much more sophisticated database.

In the next issue, we'll go back to the core HanDBase application and look at some more advanced field types and layout options.

Working with
RepliGo

Some insights into this universal document viewer for virtually all handhelds and smartphones

The latest 'universal' document viewer, RepliGo, comes with both good news and bad news for the handheld computer user. Getting the bad news out of the way first, it means yet another proprietary file format. In fact, it means another *two* formats, because its files on a Palm OS handheld are unfortunately kept in a Palm 'database', while the same document converted for use on a Pocket PC or Symbian device can stay in the standard RepliGo (.rgo) format.

Documents for all

Having resigned yourself to the use of a new file format, the good news is that RepliGo works very well. Like Adobe's Acrobat (PDF) system, RepliGo is read-only throughout, with viewer applications available for Pocket PC, Symbian OS, Palm OS and Windows.

Like Acrobat, RepliGo files are essentially graphical, produced using a special Windows printer driver. Like Acrobat, there are a wide selection of zoom levels and a facility to scroll around to any part of a page. Where RepliGo scores is that it's a system designed from the ground-up to work with handheld computers, so there are none of those horrible font, graphics or kerning problems that occur with the various handheld versions of Acrobat Reader.

Flowed mode

Possibly the biggest single attraction of RepliGo, other than the universality of its printer driver mechanism, is its Flowed mode, in which all images are removed and document text is presented in word-wrapped form on-screen, in a choice of five

RepliGo running in 'Flowed' mode on a Sony Ericsson P800

Zoomed in slightly while viewing a converted PDF on a Pocket PC

fonts. Flowed mode makes for easy reading when dealing with largely text-based documents, although you can only read through one virtual page at a time. Double-tapping on any paragraph in the main graphical view automatically brings up just the right bit of text in Flowed mode.
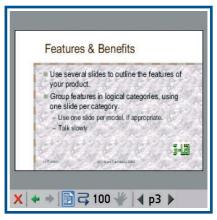
Easy interface

The RepliGo interface is minimalist but intuitive. Web browser-like forward and backwards buttons work well, with separate buttons/indicators for the three main screen modes: whole page, flowed and zoom. A 'hand' icon toggles, just as in Acrobat Reader, between drag-to-scroll and drag-to-select modes.
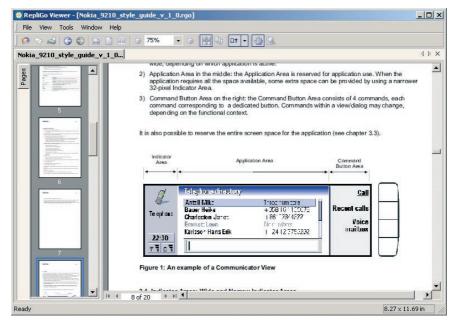
The installation routine puts RepliGo buttons into the toolbars of Microsoft Office and Internet Explorer, which saves a few mouse clicks, although you can print to RepliGo from just about any application, from desktop publishing to image editing to email to CAD. If you can print it, you can RepliGo it. Conversion times are typically very fast indeed (a few seconds) for Pocket PC and Symbian OS, but slower for Palm OS because of the extra database conversion step into Palm-native '.pdb' format.

You can RepliGo from anywhere—this was taken from an obscure Windows desktop publishing application

RepliGo works particularly well for PowerPoint presentations
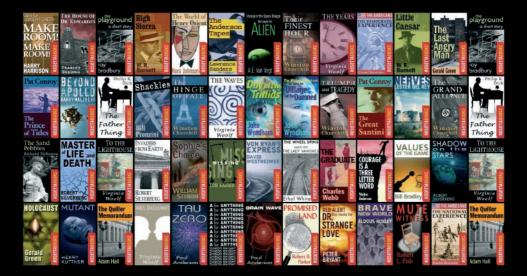
Woring with Repligo's Windows desktop viewer

Current limitations
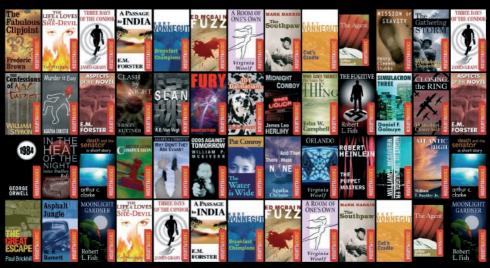
Nothing's perfect though, and it's worth noting that the current version offers no way of searching for text or of selecting it for copying and pasting elsewhere on the handheld. There's also no hyperlinking, which makes the Internet Explorer integration a little less useful than it might otherwise have been. Once you accept the limitation that you're basically viewing an image of a printed page with a few hacks to aid the reading of its text, you'll start to feel more comfortable with RepliGo.

In addition to free viewers for all the different handheld platforms, there are sample RepliGo files for download on the *www.cerience.com* web site. Loading these up will give you a good idea of what you can accomplish. If you want to go further, there's a 14-day trial version of the RepliGo Desktop for each platform, after which it's $25 to buy. Sadly, the different RepliGo convertors can't co-exist, so if you have several handhelds of different types then you'll need to decide which one gets the RepliGo treatment.
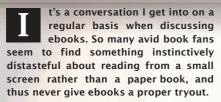
Worth a Read

Our regular look at the ever-expanding world of ebooks and ebook-related software for your handheld

It's a conversation I get into on a regular basis when discussing ebooks. So many avid book fans seem to find something instinctively distasteful about reading from a small screen rather than a paper book, and thus never give ebooks a proper tryout.

It's all quite understandable, with the whole idea of ebooks conjuring an image (to the non-PDA user) of endless squinting to make out hard-to-read text on a tiny screen—probably one with very poor contrast and low resolution, blocky text.

Try it—you'll like it

As savvy PDA users know, handhelds just aren't like that any more. Almost all the latest models come with beautifully crisp, high resolution transreflective screens which can render text that, for practical purposes, is as comfortable to read as anything on the printed page. The contrast of a good PDA screen is better than ink on paper (i.e. the blacks are blacker and the whites are whiter), and you can regulate the screen brightness for comfortable viewing in anything from full daylight to total darkness.

The only time an ebook is really harder to read than a 'real' book is in bright sunlight, where many handheld screens lose much of their contrast. Still, taking your precious PDA on holiday to the beach is probably not a great idea anyway, with all that salty air and sand. Oddly enough, bright sunlight is one situation in which old fashioned monochrome screens work much better, maybe reason enough not to sell that ageing palmtop.

The ultimate page turner

One often neglected benefit of ebooks is that most of us need two hands when it comes to turning the pages of a paper book, but with most handhelds it's easy to hold the device and scroll through pages with one hand, and most (but not all) handhelds are lighter and more comfortable to hold than the average paper book.

For and against

Then there's the benefit of instant book-marking of pages, and all good ebook readers will let you highlight and otherwise annotate your text for future reference. Easy lookup of word definitions from a built-in or add-on dictionary is a powerful lure for those who like to increase their vocabulary while reading, or those who are learning to read in a second language. Let's face it, if most of us come across a word whose meaning we're unsure of, it's usually too much trouble to go to a book-shelf and dig out a dictionary. With ebooks, it's the work of a second or two to drag the cursor over the offending word and pop up a quick definition.

Proponents of paper books admittedly have a few good arguments in their favour too. Aside from the sunlight issue, there's the fact that paper books don't have batteries that might go flat on you halfway through a particularly riveting chapter. The biggest sticking point for most people, though, is that paper books are such *nice* things to own. With all the convenience in the world, an ebook offers nothing to stand proudly on your bookshelf to adorn your home or office. There's also none of the tactile

experience of opening the fresh, shiny cover of a weighty hardback tome.

Save a tree?

One argument that some ebook fans cite to nonbelievers is that ebooks avoid the need to cut down trees and are thus more environmentally friendly. This idea really falls down under scrutiny though, as most paper nowadays comes from sustainable forests grown specifically for paper manufacture. Plus, handheld computers need charging with electrical power, which is most definitely *not* environmentally friendly, particularly if your local power station runs on fossil or nuclear fuels. Granted, the amount of power needed to charge a handheld is very small, but likewise the amount of paper pulp needed to create a single book is similarly small. If your handheld runs on disposable batteries, then your e-reading is probably doing a lot more harm to the environment than a few paper books would.

A toe in the water...

So, despite their few limitations and despite the misconceptions both for and against ebooks, they're something every avid reader should give a fair tryout. If you think ebooks aren't for you, find one novel that you'd *really* like to read, and buy the ebook version instead of the paper edition. If, by the end of a full novel you still don't like reading on a handheld then it probably isn't for you. If, like most of us, you've warmed to the many benefits of e-reading by that point, you'll almost certainly find yourself reading more, as you'll always have a good book no further away than your shirt pocket or handbag. And for those of us with a true love of reading, that *has* to be a good thing.

On the NET

Been Bluejackqed yet?

Well, if you've got an up to date PDA or smartphone, the chances are you will be soon. So, what's it all about? Much of the latest handheld technology out there comes with Bluetooth (short-range wireless data communication). If you own a handheld machine or a mobile phone, it may well have Bluetooth built-in for connection to other mobile phones, to back up to your PC, or for a cable-less headset. The cunning bit is that if you've turned Bluetooth on, your device is transmitting a signal that other Bluetooth gadgets can detect, which is where the fun starts. Stand in a busy area, such as a train station, exhibition hall or a high-tech office, and scan for other Bluetooth devices. If there are any in range, you can beam an anonymous "hello" over to them, and watch for a reaction as the recipient tries to work out where and who the message has come from.

Although this is something that the technically-minded have been aware of for some time, it's been brought to public attention via the **Bluejackq** site. This was launched at the beginning of October and, one month later, the site's achieving over 115,000 page views each day. Not bad, especially considering that the name Bluejackq (and the site itself) was created by a 13 year old girl, known as jellyellie.

It's bad enough having your letterbox violated with credit card applications, telemarketing calls and an inbox full of offers to enhance your anatomy, but now we'll find ourselves being spammed by the person next to us on the train.
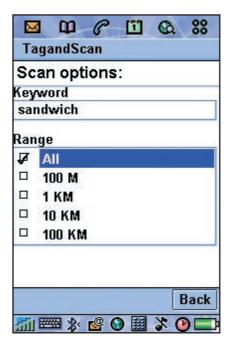
www.bluejackq.com.

Ready to Bluejackq

Tag and Scan

One to watch is a service called **Tag and Scan**. This is a location-based service that can be run from just about any mobile phone that supports Java, and lets you store or search nearby attractions based on where you are at any given time. After

We've been trialling Tag and Scan as part of a public beta programme, and initial impressions are that this will be big when it's launched commercially, by the time you read this.

www.tagandscan.com

Showing your age

Proving that nostalgia's not a thing of the past, check out the **Obsolete Computer Museum**, an online repository for knowledge and photos of early desktop and handheld devices. This collection of information and comment has been running since 1995, and Psion owners will be more than a little sad to note that the Series 5 has recently earned itself a place in the archives.

www.obsoletecomputermuseum.org

And finally...

When you see a news story with the title 'Palm OS Robotic Tattoo Machine Invented', you've just got to take a look. An Austrian inventor has created a Palm-powered strap-on device that takes scribbles on a Palm screen and makes them permanent.

Provided you're not squeamish, take a look at the contraption in question over at *www.palminfocenter.com/view_story.asp?ID=4685* . No word yet on a more powerful version for OS5, or support for 16 million colours...

For links to sites visited by On The Net, go to *www.filesaveas.com/otn.html*.

downloading the small application via your WAP browser, you can 'Tag' your present location and add text about nearby sights, eateries or places of interest, and make them either private or public. Other users, arriving in the area looking for something to do, can perform a 'Scan' for local tags and view the contributed text. Users of cameraphones such as the Nokia 3650, Handspring Treo 600 or the Sony Ericsson P800/P900 will be able to upload snaps of their tags too, or you can view and add to tags via the service's web interface. It's of particular use in built-up areas, where the increased number of cellbases help to provide a more accurate location than you'll find if using the service in more rural areas. Once the number of online tags grows, this has the potential to be very useful and quite addictive.

Hints & Tips

Selection just got smarter

Palm OS

Did you know that there are two 'double-tap' text selection options in Palm OS, neither of which is very well known? Firstly, try double-tapping on a letter in a word—the entire word should be selected. Secondly, try double-tapping again, but this time leave the stylus pressed down—you can now drag your stylus around to extend the selection, entire words at a time.

Peggy Arnott, London

Overriding auto-off

Palm OS

There are plenty of occasions when having Palm OS 'helpfully' turn your handheld off after a few minutes to save battery power can be a downright nuisance. When trying to follow driving directions or music lyrics, for example. The simplest solution is to use one of the built-in system ShortCuts. Go into any text editing screen and write in 'ShortCut dot 3', i.e. the ShortCut Graffiti stroke, followed by a full stop (period) and the number "3". The handheld will respond

by inserting the text '[No Auto-Off]' and you're done.

To reset the auto-off period, just go into Preferences and choose a new time-out period in the usual way.

D S Rowe, Chesterfield, Derbyshire

More launch options...

Palm OS

Referring back to Eric Linghurst's Teal-Launch tip in the last issue, there are of course a number of freeware alternatives to help launch your applications more easily. An excellent example is EasyLaunch hack, from *www.mujweb.cz/www/hysy.*

EasyLaunch is quite customisable: you can either use hardware button presses or stylus strokes to launch applications and perform frequent actions, and can choose which applications are launched with different uses of the four hardware buttons. For example, I retain the default Palm OS applications with a quick press and use a long press to launch four additional applications. The program's author claims a possible 240 button press combinations, depending on your PDA model, plus another 35 possible pen strokes using the silkscreen buttons, Graffiti area and display area.

Ow Kah Leong, SINGAPORE

One adaptor fits all

You quite possibly own several handheld gadgets which need recharging on the move. However, rather than buying separate 12V car charger leads for each device, why not get a single (around £40) 'invertor' instead? These are available from all the usual PDA suppliers and provide mains power from your car battery. Once you have this, just bring along the usual mains charging lead for any gadgets you want to take with you. And once your handhelds and phones are topped up, you can always plug in a shaver or CD player!

Graham Barnes, London

More File Manager detail

Don't forget that you're not limited to the weedy filename view the Nokia 9210's File Manager presents by default. With the highlight on a folder name in the left-hand pane, use the 'Open' command button and you'll see the folder's contents in full-screen detail, with full names, dates and sizes.

Steven Lusher, Bournemouth, Dorset

P800 broadband

You can use your Sony Ericsson P800 (or P900) to download email or surf the web at broadband speeds, as long as it's cradled. Because of the way the P800 connects to your PC, using Internet standard TCP/IP protocols, the communicator happily uses an existing TCP/IP Internet connection on the desktop, if it finds one. This undocumented trick can be useful for a quick email fix before travelling, and for populating your P800 web browser's bookmarks list.

Peter Stuart, Maidstone, Kent

Keyboard envy

The hardest thing about giving up my Psion handheld in favour of a Palm device was getting used to the idea of being without a keyboard. The thought of tapping out lengthy word processor documents on a tiny screen was very off-putting after being used to the wonderful, responsive keyboard of the Psion Series 5mx.

On studying the marketplace though, I found a simply enormous array of add-in keyboards available for these keyboard-less handhelds, ranging from tiny 'thumb' keyboards to almost full-sized QWERTY keyboards that are significantly better than the one built into my ancient Windows laptop.

Thankfully I was able to try out a number of alternative keyboards when visiting a computer superstore on a recent business trip, and was able to find something that works well for me (Palm's own folding keyboard), but not without first experimenting with at least half a dozen others.

After my initial reticence to switch, I've now found that Graffiti input or my Sony Clie's on-screen keyboard are quite acceptable when adding or editing diary entries, contacts and the like, and I can use a nice big, comfortable keyboard on the (relatively uncommon) occasions that I need to enter several hundred words at a time.

So, if you're about to take the plunge with your first keyboardless device I'd urge you to try as many alternatives as you can, and persevere a little with the seemingly clumsy text input options built into most modern devices.

I still miss my Psion in many ways, but my new colour Sony Clie screen is far easier to read, and it is less weighty to carry around, even *with* the add-on keyboard!

Graeme Sanderton, Edinburgh

Crazy calculator

Pocket PC

I've been driving myself crazy recently while using the built-in Pocket PC Calculator application. I've been painstakingly entering exchange rates for all major currencies, intending to use

the calculator's built-in currency conversion feature, but every so often I find that all my conversion rates have been mysteriously erased.

On further investigation, it turns out that any rates you enter are immediately lost in the event of a soft reset. As I usually have to reset my iPAQ at least two or three times a week for various reasons, this 'feature' becomes practically worthless.

Since wrestling with this, I've discovered that I can use a currency conversion add-on for the free Mobipocket (*www.mobipocket.com*) Reader program, which automatically downloads the current exchange rate whenever I hook up and synchronize with my PC. It only works with half a dozen major currencies, but this way I can always keep up to date, without even having to remember to perform any manual operations.

Sam Vincent, Malmö, SWEDEN

Even worse, the calculator problem has not been fixed in the new Windows Mobile 2003 version of the Pocket PC OS - Ed.

Beware 2003!

Pocket PC

I've recently switched from an ageing Pocket PC 2002 device to a Toshiba e750, which runs the brand new 'Windows Mobile 2003 for Pocket PCs' operating system. Although I understand that it will take software developers a while to tweak their products to work correctly with the new operating system, I've been a little horrified to find that around 20% of my 30-40 third party programs, utilities and games are refusing to run on my new device.

So, if you have some Pocket PC 2002 programs that you just can't live without, I'd urge you to check the developers' web sites *before* buying yourself that shiny new handheld, or at least consider keeping your old one until you've successfully loaded and checked out all your favourite programs on the new machine!

Olivier Merchant, Ottawa, CANADA

Q&A

Get your handheld-related questions answered by our editorial panel...

Anyone for Arabic?

Palm OS

Q I use my handheld (bought in the UK) in English all the time, but I was wondering if there's a way to add my native Arabic characters to its interface. When I first booted it, I did get the choice of five languages, but not Arabic.

Imran Niazzi, MOROCCO

A **In fact, there is, though you will have to pay for a third party utility to help out. With PiLoc (*www.penreader.com/PalmOS/PiLoc.html*), you can run most of your Palm's functions in any of 26 extra languages, including Arabic, Russian, Czech, Greek, Hebrew, Swedish, Slovak, and many more. All the menus, dialogs and Graffiti characters, even the pop-up keyboard, appear in the chosen language and character set.**

MP3 disappointment

Palm OS

Q Having bought a Palm Zire 71 with the idea of playing MP3 music files while I work, I've been rather disappointed by its performance. The sound quality and volume isn't brilliant, and when I'm playing music many other Palm OS programs work much more slowly than normal. Should I ditch the Zire and get a Sony Clie instead?

Alex Taylor, Glasgow

A **There's no need to get rid of the rather excellent Zire 71. What you do need is some decent playback software. Palm did a deal with Real Networks and came up with the free RealOne Player, but its performance** isn't exactly stellar. Instead, try one of the two main alternatives: Pocket Tunes (*www.pocket-tunes.com*) and AeroPlayer (*www.aerodromesoftware.com*), both of which consume far less processor power and both of which have an extra volume boost.

P800 photos done right

Q I'm debating whether to swap my trusty Psion 5mx for a brand new Sony Ericsson P800, especially as I'm also thinking about a digital camera. I've seen photos on the Web that were taken with other 'camera-phones', and have been horrified by their low resolution and quality. Will the P800 be right for me?

Milly Brown, Birmingham

A It very much depends on what you want to do with the pictures. The P800 has a lot of horsepower and produces 640x480 pixel images of surprising quality—certainly better than those from many other camera-phones. For printed use though, this resolution is going to disappoint you.

If you do go down the P800 route, make sure you go into the CommuniCam Preferences and set the 'Picture quality' to 'High'. Each picture only takes a couple of seconds to save in this mode, and you'll know that you're getting the best image quality possible (see example shot below). And keep the lens cover clean by wiping it with a lint-free cloth.

Editor's note: the P900, the successor to the P800 (see review on page 43), offers a number of improvements over the original, but camera resolution is identical.

What, no HTML emails?

Q I recently bought a Sony Ericsson P800 because I need a portable device that can send and receive email. Before choosing this product, I had read Sony Ericsson's marketing information very carefully and trusted its claim that the P800 is able to both send and receive email. However, I soon found that the majority of emails that I received were filled with gobbledygook codes. Upon searching the Sony Ericsson knowledgebase, I was shocked to discover the admission that "The P800 email client does not support HTML coded emails."

I feel frustrated and somewhat cheated. One cannot control the format of received emails, and nowadays the standard format appears to be HTML. When the manufacturer of my relatively expensive 'smart' phone claimed that it is able to receive emails, I naturally expected it to be able read those sent in HTML.

Ron Paschke, London

A It comes as a shock to most PDA users to find out that the email client software built into most current handhelds either doesn't support HTML formatting at all, or only supports basic text styling, such as bold and italics—as is the case with the built-in P800 email software.

The situation will inevitably change as handheld applications become more powerful, but in the meantime things are made worse by the ever-changing nature of the HTML standard, which means that the goalposts are constantly moving for software developers.

In the short term, you may like to check out EmailViewer (*www.reqwireless.com*), a Java-based rich email client that adds HTML support for both P800 and Nokia Series 60 devices.

Making your own ebooks

Q I make my own ebooks for my Palm handheld using a program called MakeDoc (available from *www.palmgear.com*), which converts text files to '.prc' (Palm doc) files that can then be read by the Palm Reader application (*www.palmone.com*). I have recently purchased a Dell Axim Pocket PC that incorporates Microsoft Reader, which uses '.lit' format files rather than '.prc'. Is there a program that will let me convert plain text files to '.lit' files, perhaps even as a plug-in for Microsoft Word on my PC?

Keith Murray, London

A There are a number of options for converting text files into Microsoft Reader format. As you suggest, one of the easiest is to save Microsoft Word documents directly into '.lit' files from the desktop. You can download WordRMR, the free 'Read in Microsoft Reader' add-in for Word 2000 and Word 2002, which adds a Microsoft Reader icon for direct conversion. The file can be downloaded from **www.microsoft.com/ reader/downloads**.

Also available via the same web page is ReaderWorks, which can be used to create ebooks (complete with images) directly from Word files, text files or HTML. This is available in both a cut-down free version and a more sophisticated commercial version.

Alternatively, Mobipocket Publisher (**www.mobipocket.com**) is able to save plain text, Word, RTF or HTML files into Microsoft Reader format, as well as Mobipocket's own format. The software is free for personal use, or for distributing free files to others. You'll need to dig around in the documentation a little to find the option to save into '.lit' format, but it's there.

Picture perfect

Q There are masses of good picture viewers available for Pocket PC, but none of them seem to allow any useful amount of editing on the handheld. Is there really no program that will allow me to crop photographs from my digital camera and do some basic editing of colour balance, etc. without having to resort to Adobe Photoshop on my PC?

Allan Keele, Amsterdam, THE NETHERLANDS

A Since you mention Adobe Photoshop, there is in fact an astonishingly Photoshop-like image editor available for your Pocket PC. Pocket Artist (*www.conduits.com*) will allow you to import files in JPEG, GIF, BMP and Photoshop format, and apply many of the advanced editing features that users of Photoshop, Paintshop Pro, etc. will be familiar with.

As well as cropping and re-saving your images without loss of quality, you'll be able to adjust the colour balance, apply filters and blending modes, and adjust levels. Also particularly useful for photo-editing is a dedicated red-eye removal tool. Just like Photoshop, Pocket Artist is a painting program too, and can be used to create your own pictures from scratch, or to apply extensive editing to existing photos or other images.

Next issue...

Planned for issue 7:

▶ **More hardware on test, including new PDAs and communicators from Sony, Nokia, Dell, HP, Toshiba, O$_2$ and others**

▶ **Viewing PDF (Adobe Acrobat) documents on your handheld. The latest and best solutions for each platform**

▶ **One box or two? We look at the pros and cons of integrated phone/PDA devices versus separates**

▶ **Software gems—our pick of the top 'must have' applications for your handheld**

▶ **On the road with your PDA. An in-depth look at the latest state-of-the-art in navigation aids for all platforms**

▶ **Contact management on your PDA. The built-in PIM software on your palmtop isn't always the most efficient way of keeping track of all your business contacts. We look at some practical enhancements and alternatives**

▶ **Your portable sketchpad. A roundup of handheld drawing and sketching applications**

▶ **Speaking with your palmtop. Everything from voice control to learning aids and language tools**

▶ **Getting to grips with HanDBase—part 6**

Plus all the regular features, including news, Hints & Tips, Q&A, Game Zone, Worth a Read, On The Net and much more...

Palmtop
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